INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

CITY OF RANCHO CUCAMONGA
FIVE SINGLE-FAMILY HOME UNITS
EASTERN TERMINUS OF ARAPAHO ROAD
RANCHO CUCAMONGA CALIFORNIA 91739

LEAD AGENCY:

CITY OF RANCHO CUCAMONGA
PLANNING DEPARTMENT
10500 CIVIC CENTER DRIVE
RANCHO CUCAMONGA, CALIFORNIA 91730

REPORT PREPARED BY:

BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING
2211 SOUTH HACIENDA BOULEVARD, SUITE 107
HACIENDA HEIGHTS, CALIFORNIA 91745

FEBRUARY 27, 2021

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MITIGATED NEGATIVE DECLARATION

PROJECT NAME: Five Single-Family Home Units

PROJECT ADDRESS: Eastern Terminus of Arapaho Road, Rancho Cucamonga, CA 91739

APPLICANT: Leo Zhang, LRZT Inc. 2738 Pepperdale Drive, Rowland Heights, CA 91748

CITY AND COUNTY: City of Rancho Cucamonga, San Bernardino County

DESCRIPTION: The City of Rancho Cucamonga Planning Department, in its capacity as the Lead Agency, is reviewing a request by Leo Zhang of LRZT Inc. to construct five single-family home units on the eastern terminus of Arapaho Road within the northeastern portion of the City. The total gross land area would be 146,429 square feet (3.36 acres). According to the Tentative Tract Map No. 20152, the vacant land would be divided into six (6) lots. Lot 1 would be 25,910 square feet. Lot 2 would be 27,523 square feet. Lot 3 would be 20,005 square feet. Lot 4 would be 27,729 square feet. Lot 5 would be 20,452 square feet. Additionally, there would also be a Lot "A" that would be 7,256 square feet.

FINDINGS: The environmental analysis provided in the attached Initial Study indicates that the proposed project *would* not result in any significant unmitigable adverse environmental impacts. For this reason, the City of Rancho Cucamonga determined that a *Mitigated Negative Declaration* is the appropriate CEQA document for the proposed project. The following findings may also be made based on the analysis contained in the attached Initial Study:

- The proposed project *would not* have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory.
- The proposed project *would not* have impacts that are individually limited, but cumulatively considerable.
- The proposed project *would not* have environmental effects which *would* cause substantially adverse effects on human beings, either directly or indirectly.

The environmental analysis is provided in the attached Initial Study prepared for the proposed project. The proposed project is also described in greater detail in the attached Initial Study.

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SECTION 1 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY

The proposed project involves the construction of five single-family home units on the eastern terminus of Arapaho Road within the northeastern portion of the City of Rancho Cucamonga (referred to hereinafter as "the City"). The total gross land area would be 146,429 square feet (3.36 acres). According to the Tentative Tract Map No. 20152, the vacant land would be divided into six (6) lots. Lot 1 would be 25,910 square feet. Lot 2 would be 27,523 square feet. Lot 3 will be 20,005 square feet. Lot 4 would be 27,729 square feet. Lot 5 would be 20,452 square feet. Additionally, there would also be a Lot "A" that will be 7,256 square feet.[1] The proposed project applicant is Leo Zhang, LRZT Inc. 2738 Pepperdale Drive, Rowland Heights, CA 91748. As part of the proposed project's environmental review, the City of Rancho Cucamonga authorized the preparation of this Initial Study.[2] Although this Initial Study was prepared with consultant support, the analysis, conclusions, and findings made as part of its preparation fully represent the independent judgment and analysis of the City of Rancho Cucamonga, in its capacity as the Lead Agency. The primary purpose of CEQA is to ensure that decision-makers and the public understand the environmental impacts of the proposed project and that decision-makers have considered such impacts before considering approval of the proposed project. Pursuant to the CEQA Guidelines, purposes of this Initial Study include the following:

- To provide the City information to use as the basis for deciding whether to prepare an environmental impact report (EIR), mitigated negative declaration, or negative declaration;
- To facilitate the project's environmental assessment early in the design and development of the proposed project;
- To eliminate unnecessary EIRs;
- To determine the nature and extent of any impacts associated with the proposed project; and,
- To enable modification of the proposed project to mitigate adverse impacts.

The City also determined, as part of this Initial Study's preparation, that a Mitigated Negative Declaration is the appropriate environmental document for the proposed project's environmental review pursuant to CEQA. This Initial Study and the *Notice of Intent to Adopt a Mitigated Negative Declaration* will be forwarded to responsible agencies, trustee agencies, and the public for review and comment.

A 30-day public review period will be provided to allow these agencies and other interested parties to comment on the proposed project and the findings of this Initial Study.[3]

[1] W&W Land Design Consultants, Inc. *Site Utilization Map, 5 Lots Residential Subdivision – TR 20152. Sheet No. 1.* May 29, 2019.

[2] *California, State of. Title 14. California Code of Regulations. Chapter 3. Guidelines for the Implementation of the California Environmental Quality Act. As Amended 1998 (CEQA Guidelines). §15050.*

[3] *California, State of. Title 14. California Code of Regulations. Chapter 3. Guidelines for the Implementation of the California Environmental Quality Act. As Amended 1998 (CEQA Guidelines). §15060 (b).*

1.2 INITIAL STUDY'S ORGANIZATION

The following annotated outline summarizes the contents of this Initial Study:

- *Section 1 Introduction* provides the procedural context surrounding this Initial Study's preparation and insight into its composition. This section also includes a checklist that summarizes the findings of this Initial Study.

- *Section 2 Project Description* provides an overview of the existing environment as it relates to the project site and describes the proposed project's physical and operational characteristics.

- *Section 3 Environmental Analysis* includes an analysis of potential impacts associated with the proposed project's construction and the subsequent operation.

- *Section 4 Conclusions* includes the findings of the environmental analysis and the Mandatory Findings of Significance. In addition, this section includes the Mitigation Monitoring and Reporting Program (MMRP).

- *Section 5 References* identifies the sources used in the preparation of this Initial Study.

The Appendix is included in a separate volume and includes the air quality/greenhouse gas analysis, the biological assessment, the water quality management plan (WQMP), and utilities consumption and generation worksheets.

1.3 INITIAL STUDY CHECKLIST

The environmental analysis provided in Section 3 of this Initial Study indicates that the proposed project *would* not result in any unmitigable, significant impacts on the environment. For this reason, the City of Rancho Cucamonga determined that a Mitigated Negative Declaration is the appropriate CEQA document for the proposed project. The findings of this Initial Study are summarized in Table 1-1.

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
SECTION 3.1 AESTHETICS.				
3.1.A. Would the project have a substantial adverse effect on a scenic vista?			**X**	
3.1.B. Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				**X**
3.1.C. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from a publicly accessible vantage point)? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				**X**

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.1.D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
SECTION 3.2 AGRICULTURE & FORESTRY RESOURCES				
3.2.A. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses?				X
3.2.B. Would the project conflict with existing zoning for agricultural uses, or a Williamson Act Contract?				X
3.2.C. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
3.2.D. Would the project result in the loss of forest land or conversion of forest land to a non-forest use?				X
3.2.E. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to a non-forest use?				X
SECTION 3.3 AIR QUALITY				
3.3.A. Would the project conflict with or obstruct implementation of the applicable air quality plan?				X
3.3.B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?			X	
3.3.C. Would the project expose sensitive receptors to substantial pollutant concentrations?			X	
3.3.D. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	
SECTION 3.4 BIOLOGICAL RESOURCES				
3.4.A. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.4.B. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				**X**
3.4.C. Would the project have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
3.4.D. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or impede the use of native wildlife nursery sites?				**X**
3.4.E. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
3.4.F. 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?				**X**
SECTION 3.5 CULTURAL RESOURCES				
3.5.A. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5 of the CEQA Guidelines?				**X**
3.5.B. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?			**X**	
3.5.C. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?			**X**	
SECTION 3.6 ENERGY				
3.6.A. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?			**X**	
3.6.B. Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?				**X**
SECTION 3.7 GEOLOGY & SOILS				
3.7.A. 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?			**X**	

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.7.B. Would the project result in substantial soil erosion or the loss of topsoil?				**X**
3.7.C Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			**X**	
3.7.D. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2012), creating substantial direct or indirect risks to life or property?			**X**	
3.7.E. 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?			**X**	
3.7.F. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			**X**	
SECTION 3.8 GREENHOUSE GAS EMISSIONS				
3.8.A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
3.8.B. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?				**X**
SECTION 3.9 HAZARDS & HAZARDOUS MATERIALS				
3.9.A. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				**X**
3.9.B. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				**X**
3.9.C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
3.9.D. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				**X**
3.9.E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				**X**

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.9.F. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**
3.9.G. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			**X**	
SECTION 3.10 HYDROLOGY & WATER QUALITY				
3.10.A. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			**X**	
3.10.B. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			**X**	
3.10.C. 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; substantially increase the rate or amount of surface runoff in a manner in which would result in flooding on- or off-site; 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?			**X**	
3.10.D. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?				**X**
3.10.E. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				**X**
SECTION 3.11 LAND USE & PLANNING				
3.11.A. Would the project physically divide an established community?				**X**
3.11.B. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				**X**
SECTION 3.12 MINERAL RESOURCES				
3.12.A. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				**X**
3.12.B. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				**X**

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
SECTION 3.13 NOISE				
3.13.A. Would the project 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?		**X**		
3.13.B. Would the project result in generation of excessive groundborne vibration or ground-borne noise levels?			**X**	
3.13.C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				**X**
SECTION 3.14 POPULATION & HOUSING				
3.14.A. 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 extension of roads or other infrastructure)?			**X**	
3.14.B. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				**X**
SECTION 3.15 PUBLIC SERVICES				
3.15.A. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *fire protection?*			**X**	
3.15.B. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *police protection?*		**X**		
3.15.C. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *schools?*			**X**	

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.15.D. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *parks?*			**X**	
3.15.E. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *other public facilities?*			**X**	
SECTION 3.16 RECREATION				
3.16.A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			**X**	
3.16.B. 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?			**X**	
SECTION 3.17 TRANSPORTATION				
3.17.A. Would the project conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			**X**	
3.17.B. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?			**X**	
3.17.C. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				**X**
3.17.D. Would the project result in inadequate emergency access?				**X**
SECTION 3.18 TRIBAL CULTURAL RESOURCES				
3.18.A. 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 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)?		**X**		

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.18.B. 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 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.			**X**	
SECTION 3.19 UTILITIES & SERVICE SYSTEMS				
3.19.A. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			**X**	
3.19.B. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			**X**	
3.19.C. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			**X**	
3.19.D. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			**X**	
3.19.E. Would the project comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?				**X**
SECTION 3.20 WILDFIRE				
3.20.A. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?			**X**	
3.20.B. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?			**X**	

Table 1-1
Initial Study Checklist

Description of Issue	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
3.20.C. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, 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?			**X**	
3.20.D. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, 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?				**X**
SECTION 3.21 MANDATORY FINDINGS OF SIGNIFICANCE				
3.21.A. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				**X**
3.21.B. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)				**X**
3.21.C. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				**X**

SECTION 2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The proposed project involves the construction of five single-family home units on the eastern terminus of Arapaho Road within the northeastern portion of the City. The total gross land area would be 146,429 square feet (3.36 acres). According to the Tentative Tract Map No. 20152, the vacant land would be divided into six (6) lots. Lot 1 would be 25,910 square feet. Lot 2 would be 27,523 square feet. Lot 3 would be 20,005 square feet. Lot 4 would be 27,729 square feet. Lot 5 would be 20,452 square feet. Additionally, there would also be a sixth lot, Lot "A" that would be 7,256 square feet.[4] The proposed project is described in greater detail in Section 2.4.

2.2 PROJECT LOCATION

The proposed project site is located within the eastern terminus of Arapaho Road within the northeastern portion of the City. Regional access to Rancho Cucamonga is possible from three area freeways: State Route 210 (SR-210), which extends in an east-west orientation in the northern portion of the City; Interstate 15 (I-15), which extends in a north-south orientation in the eastern portion of the City; and, Interstate 10 (I-10), which extends in an east-west orientation 0.68 mile south of the City. Rancho Cucamonga is bounded by the San Gabriel Mountains to the north, the City of Ontario to the south, the City of Fontana and an unincorporated county area to the east, and the City of Upland to the west.

Rectangular in shape, the proposed project site is comprised of one parcel and has a total of approximately 146,429 square feet of lot area (3.36 acres). The Assessor Parcel Number (APN) applicable to the proposed project site is 0225-181-73-0-000. The proposed project site is located in the *VL (Very Low Residential)* zone and has a General Plan Land Use designation of *Very Low Residential.* The proposed project site is currently undeveloped. The location of the City of Rancho Cucamonga in a regional context is shown in Exhibit 2-1. A citywide map is provided in Exhibit 2-2 and a local map is provided in Exhibit 2-3.

[4] W&W Land Design Consultants, Inc. *Site Utilization Map, 5 Lots Residential Subdivision – TR 20152. Sheet No. 1.* May 29, 2019.

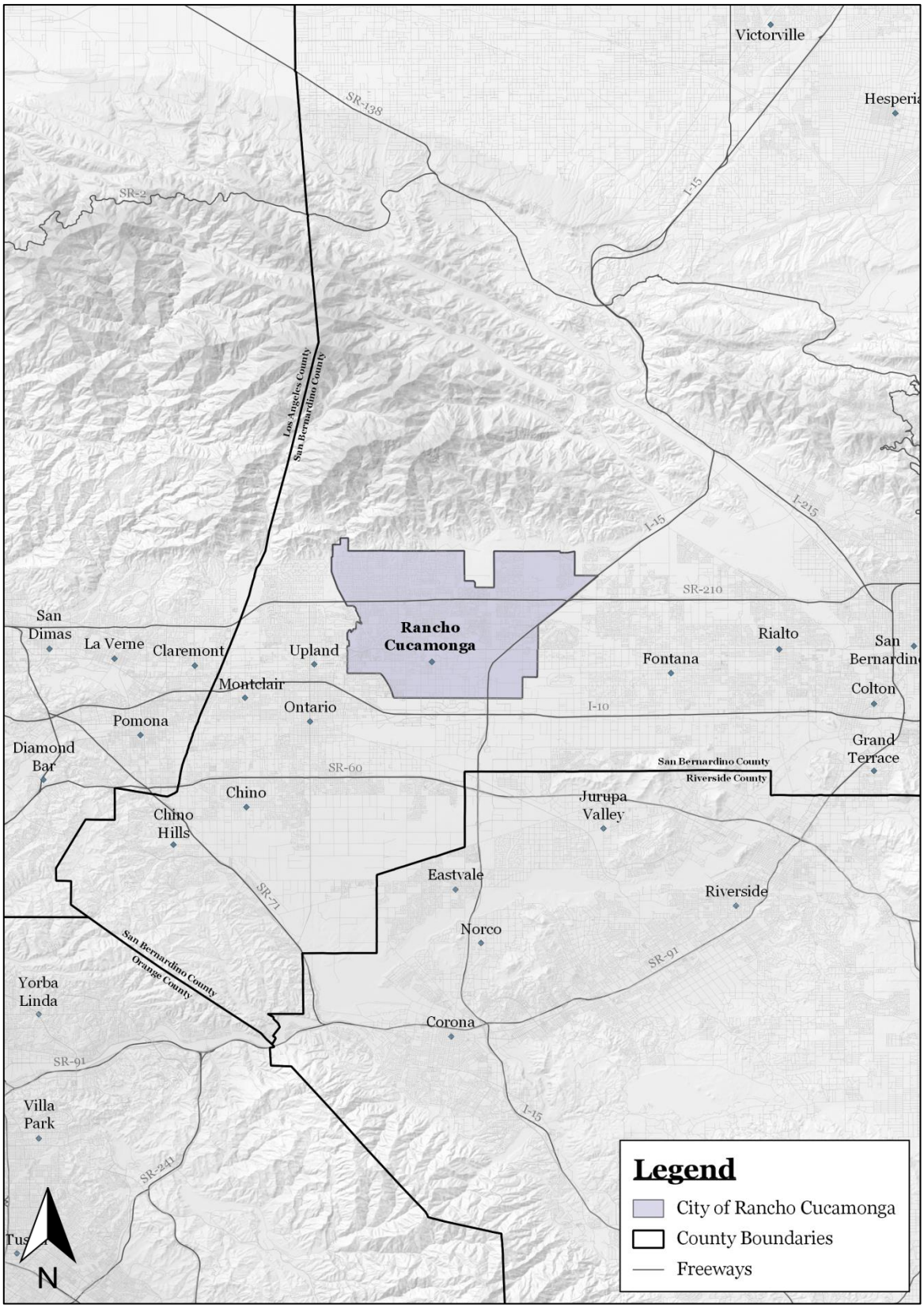

EXHIBIT 2-1
REGIONAL MAP

SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

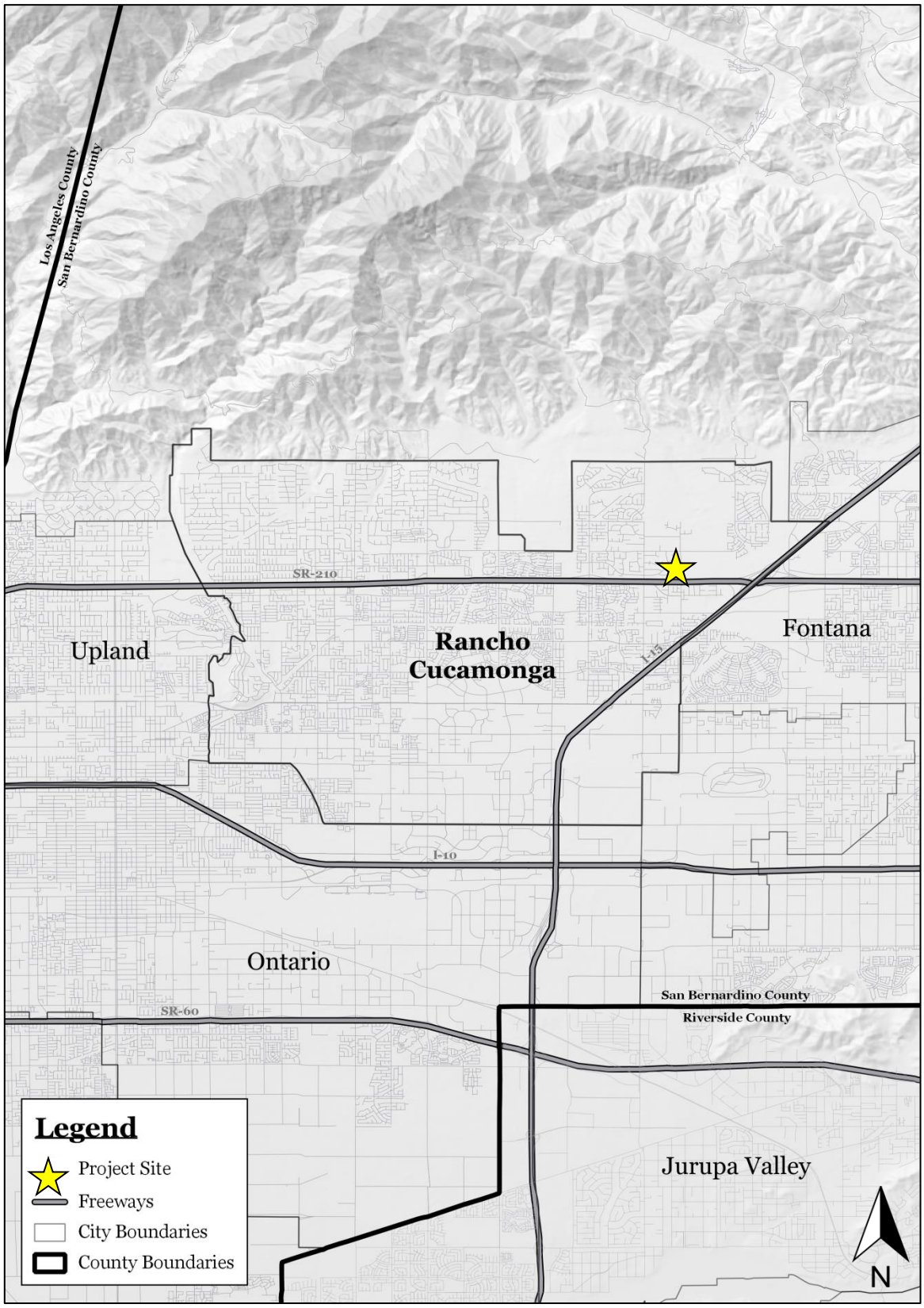

EXHIBIT 2-2
CITYWIDE MAP

SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

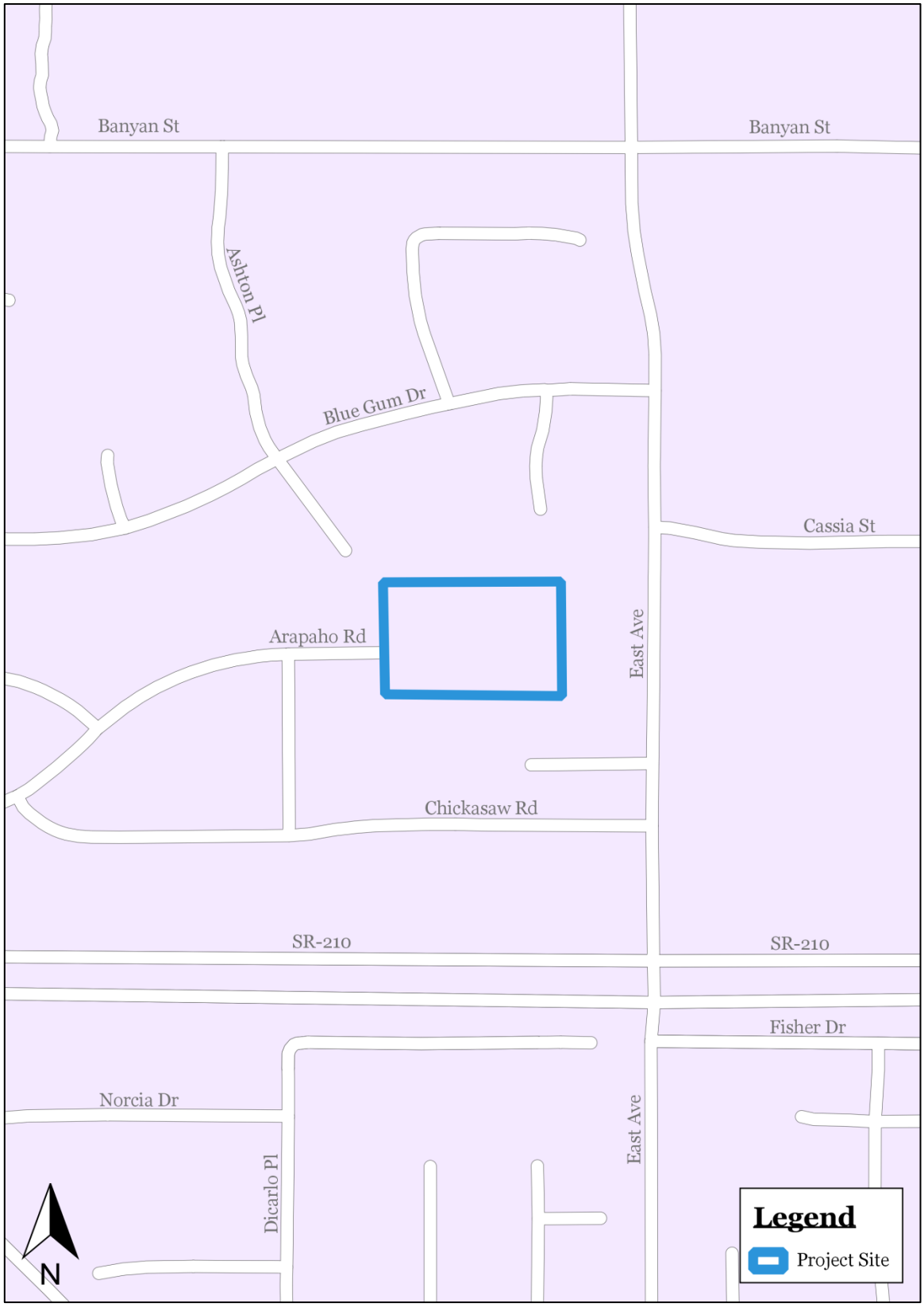

EXHIBIT 2-3
LOCAL MAP

SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

2.3 ENVIRONMENTAL SETTING

The proposed project site is located within an urbanized area of the City of Rancho Cucamonga that is primarily residential in nature. The proposed project site is currently undeveloped.[5] Rectangular in shape, the proposed project site is comprised of one parcel and has a total of approximately 146,429 square feet of lot area (3.36 acres).[6] The Assessor Parcel Number (APN) applicable to the proposed project site is 0225-181-73-0-000. The proposed project site is surrounded on all four sides by properties that are zoned *VL (Very Low Residential)* and developed with single-family residential uses. Notable uses in the vicinity of the proposed project site include Etiwanda Colony Elementary School, located 0.26 mile north of the proposed project site; Summit Intermediate School, located 0.29 mile northeast of the proposed project site; and, Etiwanda Creek Park, located 0.40 mile northeast of the proposed project site.[7] An aerial photograph depicting the proposed project site and the immediate area is provided in Exhibit 2-4.

2.4 PROJECT DESCRIPTION

2.4.1 PHYSICAL CHARACTERISTICS OF THE PROPOSED PROJECT

The proposed project involves the construction of five single-family home units on the eastern terminus of Arapaho Road within the northeastern portion of the City. The total gross land area would be 146,429 square feet (3.36 acres). According to the Tentative Tract Map No. 20152, the vacant land would be divided into six (6) lots. Lot 1 would be 25,910 square feet. Lot 2 would be 27,523 square feet. Lot 3 would be 20,005 square feet. Lot 4 would be 27,729 square feet. Lot 5 would be 20,452 square feet. Additionally, there would also be a Lot "A" that would be 7,256 square feet. Lots 1 through 5 would be improved with single-family homes. A sixth lot, Lot A, would be located in between Lots 4 and 5 and would contain a bio retention system.[8] All six lots would be located along Arapaho Road and would be accessible directly from Arapaho Road. The tentative tract map and the conceptual grading and drainage plans for the proposed project are provided in Exhibit 2-5 and 2-6, respectively.

2.4.2 CONSTRUCTION CHARACTERISTICS

Construction of the proposed project would take approximately 10 months to complete. The key construction phases are outlined below:

- *Site Preparation.* The proposed project site would be readied for the construction of the proposed project. This phase would take approximately one month to complete.

[5] Blodgett Baylosis Environmental Planning. *Site Survey. Survey was conducted on August 29, 2019.*

[6] W&W Land Design Consultants, Inc. *Site Utilization Map, 5 Lots Residential Subdivision – TR 20152. Sheet No. 1.* May 29, 2019.

[7] *Google Earth. Website accessed August 30, 2019.*

[8] W&W Land Design Consultants, Inc. *Site Utilization Map, 5 Lots Residential Subdivision – TR 20152. Sheet No. 1.* May 29, 2019.

EXHIBIT 2-4
AERIAL MAP
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

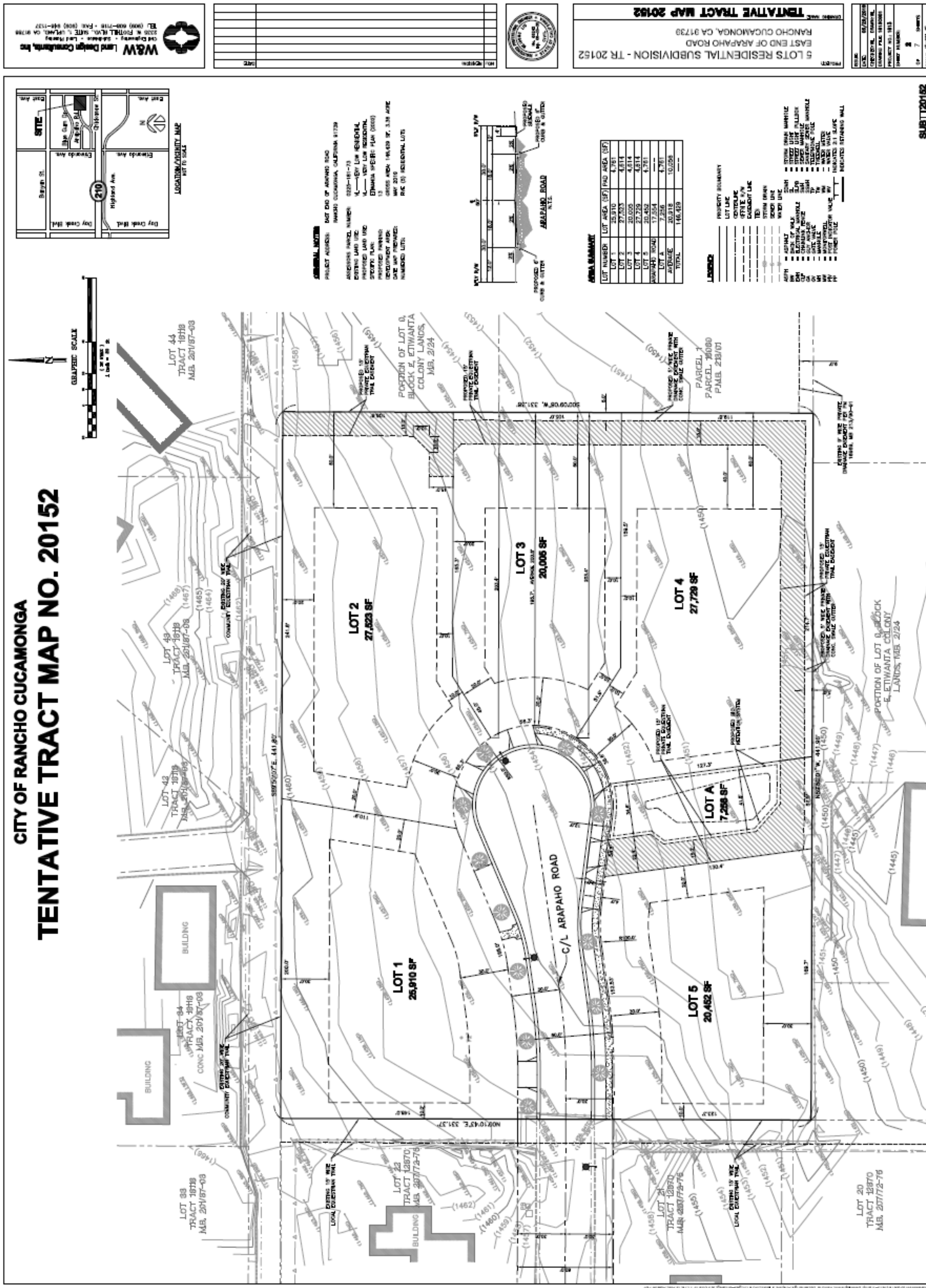

EXHIBIT 2-6
TENTATIVE TRACT MAP NO. 20152
SOURCE: W&W LAND DESIGN CONSULTANTS, INC.

EXHIBIT 2-5
TENTATIVE TRACT MAP
SOURCE: W&W LAND DEVELOPMENT CONSULTANTS, INC.

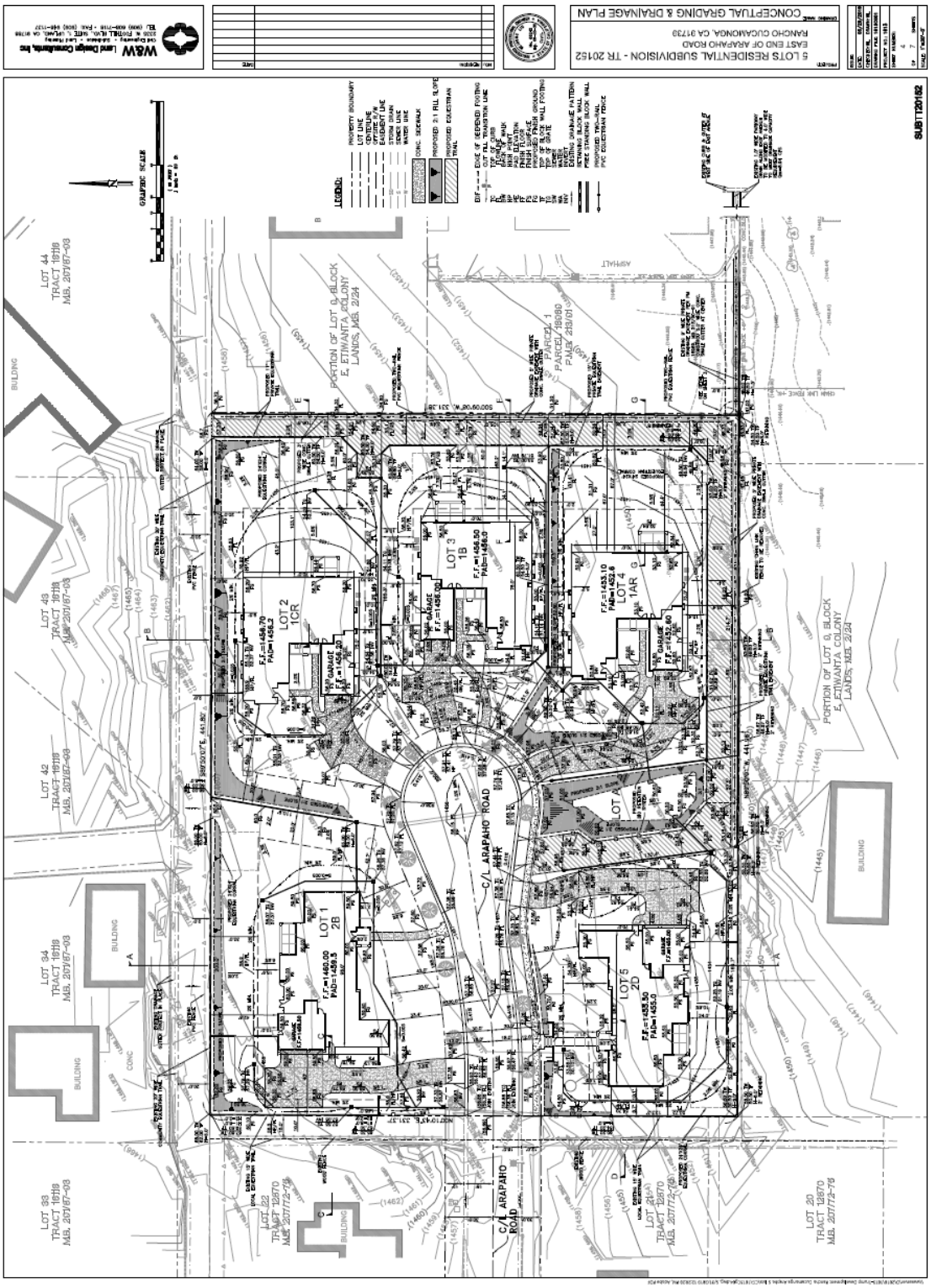

EXHIBIT 2-6
GRADING AND DRAINAGE PLAN
SOURCE: W&W LAND DEVELOPMENT CONSULTANTS, INC.

- *Grading*. This phase would involve the grading of the site. The building footings, utility lines, and other underground infrastructure would be placed during this phase. The grading for the bio retention system would also take place during this phase. This phase would take approximately one month to complete.

- *Construction*. The single-family homes would be constructed during this phase. This phase would take approximately five months to complete.

- *Paving*. The proposed project site would be paved during this phase. This phase would take approximately two months to complete.

- *Landscaping and Finishing*. This phase would involve the planting of landscaping, painting of the single-family homes, and the completion of other on-site improvements. This phase would last approximately one month.

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SECTION 3 ENVIRONMENTAL ANALYSIS

This section of the Initial Study prepared for the proposed project analyzes the potential environmental impacts that may result from the proposed project's implementation. The issue areas evaluated in this Initial Study include the following:

- Aesthetics (Section 3.1);
- Agriculture & Forestry Resources (Section 3.2);
- Air Quality (Section 3.3);
- Biological Resources (Section 3.4);
- Cultural Resources (Section 3.5);
- Energy (Section 3.6);
- Geology & Soils (Section 3.7);
- Greenhouse Gas Emissions (Section 3.8);
- Hazards & Hazardous Materials (Section 3.9);
- Hydrology & Water Quality (Section 3.10);
- Land Use & Planning (Section 3.11);
- Mineral Resources (Section 3.12);
- Noise (Section 3.13);
- Population & Housing (Section 3.14);
- Public Services (Section 3.15);
- Recreation (Section 3.16);
- Transportation (Section 3.17);
- Tribal Cultural Resources (Section 3.18);
- Utilities & Service Systems (Section 3.19);
- Wildfire (Section 3.20); and,
- Mandatory Findings of Significance (Section 3.21).

Under each issue area, a description of the thresholds of significance is provided. These thresholds will assist in making a determination as to whether there is a potential for significant impacts on the environment. The analysis considers both the short-term (construction-related) and long-term (operational) impacts associated with the proposed project's implementation, and where appropriate, the cumulative impacts. To each question, there are four possible responses:

- *No Impact*. The proposed project *would* not result in any adverse environmental impacts.

- *Less than Significant Impact*. The proposed project may have the potential for affecting the environment, although these impacts *would* be below levels or thresholds that the City of Rancho Cucamonga or other responsible agencies consider to be significant.

- *Less than Significant Impact with Mitigation*. The proposed project may have the potential to generate a significant impact on the environment. However, the level of impact may be reduced to levels that are less than significant with the implementation of the recommended mitigation measures.

- *Potentially Significant Impact*. The proposed project may result in environmental impacts that are significant. This finding *would* require the preparation of an environmental impact report (EIR).

3.1 AESTHETICS

3.1.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse aesthetic impact if it results in any of the following:

- A substantial adverse effect on a scenic vista;
- Substantial damage to scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- In non-urbanized areas, a substantial degradation to 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); in an urbanized area, a conflict with the applicable zoning and other regulations governing scenic quality; or,
- A new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project, except as provided in Public Resources Code Section 21099, have a substantial adverse effect on a scenic vista? ● Less than Significant Impact.

The proposed project involves the construction of five single-family home units on the eastern terminus of Arapaho Road within the northeastern portion of the City. The proposed project site is located among residential uses and is currently vacant and covered over in dirt. Those persons that would potentially experience the greatest change in views associated with the proposed project site's development from the public right-of-way, would be those persons travelling on East Avenue between Copley Drive (on the south) and Cassia Street (on the north). The dominant scenic views that are presently available include views of the San Gabriel Mountains, which are located 2.50 miles north of the proposed project site. Views of these mountains are partially obstructed due to existing development.[9] The single-family homes that would be constructed would be comparable in height to the surrounding single-family homes. The size and massing of these residential structures would not be great enough to obstruct scenic views beyond the current level of obstruction of these views. The maximum height of the proposed new homes would be 35-feet which is consistent with the maximum building height requirements for structures within the City's Very Low Residential Zone District. It is important to note that the residential uses that surround the proposed project site are also zoned as Very Low Residential.

The City of Rancho Cucamonga General Plan recognizes the aforementioned San Gabriel Mountains as an important scenic resource as well as the "remaining stands of eucalyptus windrows, scattered vineyards and

[9] *Blodgett Baylosis Environmental Planning. Site Survey. Survey was conducted on August 29, 2019.*

orchards, and natural vegetation in flood-control channels and utility corridors."[10]. The proposed project will not visually impact these elements. As a result, less than significant impacts would occur.

B. Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? ● No Impact.

According to the California Department of Transportation (Caltrans), none of the surrounding roadways are State-designated scenic highways and there are no State-designated scenic highways in the vicinity of the proposed project site.[11] The nearest designated scenic highways are a portion of SR-91 (from SR-55 near Santa Ana Canyon to the eastern city limit of Anaheim), approximately 17 miles southwest of the proposed project site; and, a portion of SR-2 (from 2.7 miles north of SR-210 at La Canada to San Bernardino county line), approximately 19 miles northwest of the proposed project site. The City of Rancho Cucamonga General Plan does not include any locally designated scenic highways.[12]. The proposed project site is currently undeveloped and there are no trees or rock outcroppings located within the proposed project site.[13] Lastly, the proposed project site does not contain any buildings listed in the State or National Register (refer to Section 3.5, Cultural Resources). As a result, no impacts on scenic resources would result from the proposed project's implementation.

C. Would the project's location, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? ● No Impact.

As previously mentioned, the proposed project involves the construction of five single-family home units on the eastern terminus of Arapaho Road within the northeastern portion of the City. The proposed project site is located in an urban area. Furthermore, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. The construction of the five new housing units would conform to the City's General Plan and Zoning designations that are applicable to the project site With the site's development, the property would be improved and maintained. As a result, no impacts would result.

D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ● Less than Significant Impact.

Exterior lighting can be a nuisance to adjacent land uses that are sensitive to this lighting. This nuisance lighting is referred to as *light trespass* which is typically defined as the presence of unwanted light on properties located adjacent to the source of lighting. Glare is related to light trespass and is defined as visual

[10] City of Rancho Cucamonga. *Rancho Cucamonga 2010 General Plan Update. Draft Program Environmental Impact Report. (SCH No. 2000061027.* February 16, 2010

[11] California Department of Transportation. *Official Designated Scenic Highways*. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

[12] City of Rancho Cucamonga. *Rancho Cucamonga 2010 General Plan Update. Draft Program Environmental Impact Report. (SCH No. 2000061027.* February 16, 2010

[13] Blodgett Baylosis Environmental Planning. *Site survey*. Survey was conducted on August 29, 2019.

discomfort resulting from high contrast in brightness levels. Glare-related impacts can adversely affect day or nighttime views. As with lighting trespass, glare is of most concern if it would adversely affect sensitive land use or driver's vision. Nighttime glare and illumination have the potential to result in potentially significant impacts to sensitive receptors. Many sources of light contribute to the ambient nighttime lighting conditions. These sources of nighttime light include street lights, security lighting, wall packs and vehicular headlights.

The proposed project site is surrounded on all sides by single-family homes. These single-family homes would not be exposed to spillover lighting during the evening hours because the proposed development would be residential in nature and would utilize lighting similar to that of the surrounding single-family homes. The proposed project would be required to comply with those provisions of the City of Rancho Cucamonga Municipal Code (Section 17.58.050, General Lighting Requirements). The more pertinent subsections include the following:

> "C. *Shielding*. Except as otherwise exempt, all outdoor lighting shall be recessed and/or constructed with full downward shielding in order to reduce light and glare impacts on trespass to adjoining properties and public rights-of-way. Each fixture shall be directed downward and away from adjoining properties and public rights-of-way, so that no light fixture directly illuminates an area outside of the project site intended to be illuminated. See Figure 17.58.050-2 (Shielding and Maximum Height of Freestanding Outdoor Light Fixtures).
>
> D. *Level of illumination*. Outdoor lighting shall be designed to illuminate at the minimum level necessary for safety and security and to avoid the harsh contrasts in lighting levels between the project site and adjacent properties. Illumination requirements are provided in Table 17.58.050-1 (Illumination Requirements)."

Adherence to the aforementioned requirements would reduce the potential light and glare impacts to levels that less than significant.

3.1.3 MITIGATION MEASURES

The analysis determined that less than significant impacts related to scenic vistas, scenic resources, and light and glare are anticipated upon the implementation of the proposed project, therefore no mitigation measures are required.

3.2 AGRICULTURE & FORESTRY RESOURCES

3.2.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant impact on agriculture and forestry resources if it results in any of the following:

- The conversion of 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 uses;

- A conflict with existing zoning for agricultural uses, or a Williamson Act Contract;

- A 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 loss of forest land or conversion of forest land to a non-forest use; or,

- Changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to a non-forest use.

3.2.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses? ● No Impact.

According to the California Department of Conservation, the City of Rancho Cucamonga is primarily composed of *Urban and Built-Up Land*. Portions of *Grazing Land* and *Other Land* are located approximately 275 feet east of the proposed project site, on the east side of East Avenue (refer to Exhibit 3-1).[14] The project site is separated from these lands by a roadway and other uses. In addition, the site itself is not being used as grazing land. Since the implementation of the proposed project would not involve the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses, no impacts would occur.

B. Would the project conflict with existing zoning for agricultural uses, or a Williamson Act Contract? ● No Impact.

The proposed project site is located in the *VL (Very Low Residential)* zone and has a General Plan Land Use designation of *Very Low Residential.* The project site is not subject to a Williamson Act Contract. The proposed project would not require a zone change or general plan amendment, as the proposed use is permitted within the proposed project site (refer to Section 3.11.2.A). Since no zone change or general plan amendment would occur, no loss of land zoned for/or permitting agricultural uses would occur. In addition, the proposed project site would not conflict with a Williamson Act Contract.[15] Since the proposed project would not conflict with existing zoning for agricultural uses or a Williamson Act Contract, no impacts would occur.

[14] California Department of Conservation. *California Important Farmland Finder.* https://maps.conservation.ca.gov/DLRP/CIFF/.

[15] California Department of Conservation. Williamson Act Maps. https://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx.

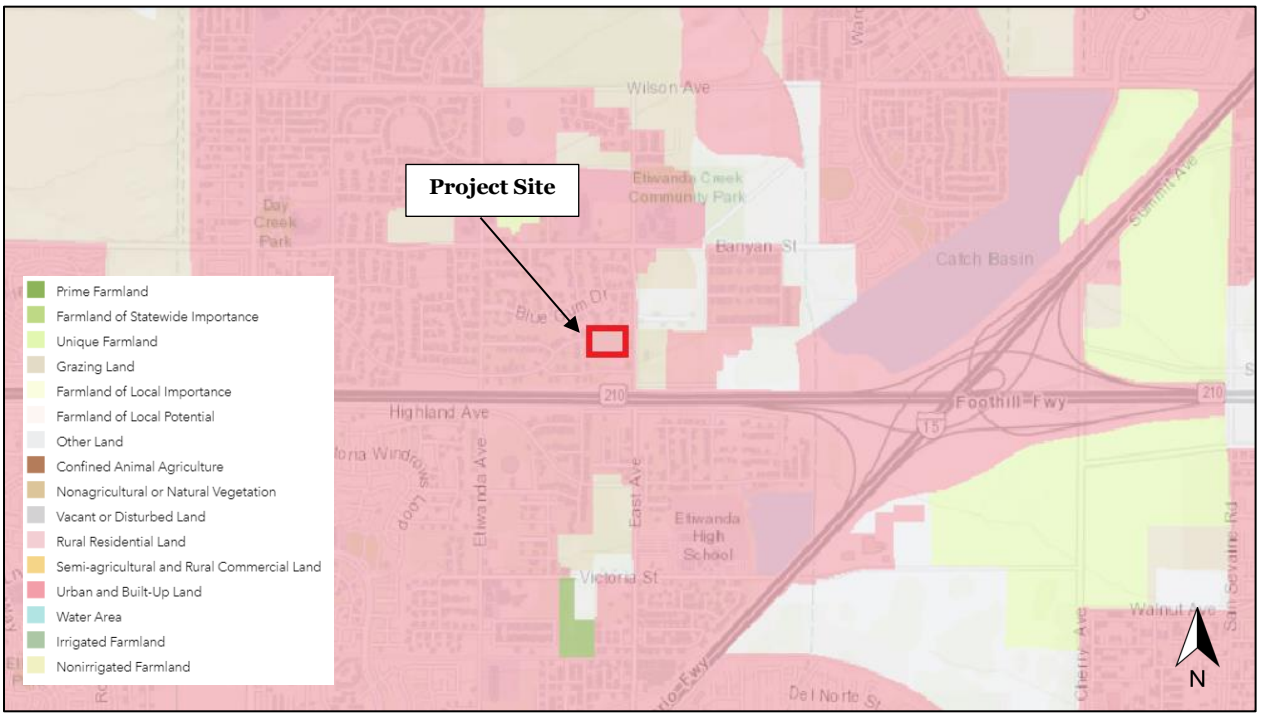

EXHIBIT 3-1
IMPORTANT FARMLAND IN RANCHO CUCAMONGA
SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION

C. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? ● No Impact.

The City of Rancho Cucamonga is located directly south of the San Bernardino National Forest. However, the proposed project site is located 2.50 miles south of the San Bernardino National Forest and does not contain any land zoned as forest land. As previously mentioned, the proposed project site is surrounded by residential uses and is zoned for residential uses. As a result, no impacts on forest land or timber resources would result from the proposed project's implementation.

D. Would the project result in the loss of forest land or conversion of forest land to a non-forest use? ● No Impact.

No forest lands are located in the vicinity of the proposed project site. As a result, no loss or conversion of forest lands to urban uses would result from the proposed project's implementation and no impacts would occur.

E. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to a non-forest use? ● No Impact.

The proposed project would not involve the disruption or damage of the existing environment that would result in a loss of farmland to non-agricultural use or conversion of forest land to non-forest use because the proposed project site is not occupied by or designated for agricultural or forest uses. As a result, no impacts would result from the implementation of the proposed project.

3.2.3 MITIGATION MEASURES

The analysis of agricultural and forestry resources indicated that no impacts on these resources would occur as part of the proposed project's implementation. As a result, no mitigation is required.

3.3 AIR QUALITY

3.3.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse environmental impact on air quality, if it results in any of the following:

- A conflict with or an obstruction of the implementation of the applicable air quality plan;
- A cumulatively considerable net increase of any criteria pollutant for which the proposed project region is non-attainment under an applicable Federal or State ambient air quality standard;

- The exposure of sensitive receptors to substantial pollutant concentrations; or,

- Other emissions adversely affecting a substantial number of people.

Air quality impacts may occur during the construction or operation phase of a project. These construction emissions or operational emissions may come from stationary sources (e.g., industrial processes, generators), mobile sources (e.g., automobiles, trucks), or area sources (e.g., offsite energy generation). The South Coast Air Quality Management District (SCAQMD) is the main regulatory authority in the region (the South Coast Air Basin, which includes the City of Rancho Cucamonga) with regard to air quality issues. In April 1993, the SCAQMD adopted a CEQA Air Quality Handbook that provides guidance for the CEQA analysis of potential air quality impacts of new projects.

The topic of air quality can be divided into three categories: construction emissions and operational emissions. Construction of new projects has the potential to create air quality impacts through excavation and grading activities and through the use of heavy-duty equipment. Fugitive dust emissions result from land clearing, demolition, excavation, and equipment traffic over unpaved roads at construction sites. Mobile source emissions, primarily nitrogen oxides (NO_x), result from the use of diesel-powered construction equipment such as bulldozers and trucks. Mobile source emissions also result from vehicle trips by construction workers to and from the proposed project site. A great percentage of fugitive dust emissions can be mitigated through the implementation of measures within Rule 403, Fugitive Dust, by SCAQMD.[16]

Operational emissions are produced by the occupants of a facility or development and by both mobile and stationary sources connected to the facility or development. Depending on the characteristics of the individual project, operational activities have the potential to generate emissions of criteria and/or toxic air contaminants. Stationary source emissions include point source emissions that have an identifiable location, such as a smokestack, as well as area source emissions, such as fumes or minor sources of exhaust, which are emitted by multiple, small sources. Mobile source emissions occur as a result of motor vehicle travel. The SCAQMD has established quantitative thresholds for short-term (construction) emissions and long-term (operational) emissions for the following criteria pollutants:

- *Ozone* (O_3) is a nearly colorless gas that irritates the lungs, damages materials, and vegetation. Ozone is formed by photochemical reaction (when nitrogen dioxide is broken down by sunlight).

- *Carbon monoxide* (CO) is a colorless, odorless toxic gas that interferes with the transfer of oxygen to the brain and is produced by the incomplete combustion of carbon-containing fuels emitted as vehicle exhaust.

- *Nitrogen dioxide* (NO_2) is a yellowish-brown gas, which at high levels can cause breathing difficulties. NO_2 is formed when nitric oxide (a pollutant from burning processes) combines with oxygen.

[16] South Coast Air Quality Management District. *Rule 403, Fugitive Dust*. As amended June 3, 2005.

- *Sulfur dioxide* (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children.

- *PM_{10} and $PM_{2.5}$* refers to particulate matter less than ten microns and two and one-half microns in diameter, respectively. Particulates of this size cause a greater health risk than larger-sized particles since fine particles can more easily cause irritation.

Projects in the South Coast Air Basin (Basin) generating *construction-related* emissions that exceed any of the following emissions thresholds are considered to be significant under CEQA:

- 75 pounds per day of reactive organic compounds;
- 100 pounds per day of nitrogen dioxide;
- 550 pounds per day of carbon monoxide;
- 150 pounds per day of PM_{10};
- 55 pounds per day of $PM_{2.5}$; or,
- 150 pounds per day of sulfur oxides.

A project would have a significant effect on air quality if any of the following *operational* emissions thresholds for criteria pollutants are exceeded:

- 55 pounds per day of reactive organic compounds;
- 55 pounds per day of nitrogen dioxide;
- 550 pounds per day of carbon monoxide;
- 150 pounds per day of PM_{10};
- 55 pounds per day of $PM_{2.5}$; or,
- 150 pounds per day of sulfur oxides.

3.3.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project conflict with or obstruct implementation of the applicable air quality plan? ● No Impact.

The proposed project site is located within the South Coast Air Basin (Basin), which covers a 6,600 square-mile area within all of Orange County, the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. Measures to improve regional air quality are outlined in the SCAQMD's Air Quality Management Plan (AQMP). The most recent 2016 AQMP was adopted in March 2017 and was jointly prepared with the California Air Resources Board (CARB) and the Southern California Association of Governments (SCAG).[17]

The AQMP will help the SCAQMD maintain focus on the air quality impacts of major projects associated with goods movement, land use, energy efficiency, and other key areas of growth. Key elements of the 2016

[17] South Coast Air Quality Management District. *Final 2016 Air Quality Plan*. Adopted March 2017.

AQMP include enhancements to existing programs to meet the 24-hour $PM_{2.5}$ Federal health standard and a proposed plan of action to reduce ground-level ozone. The primary criteria pollutants that remain non-attainment in the local area include $PM_{2.5}$ and ozone. Specific criteria for determining a project's conformity with the AQMP is defined in Section 12.3 of the SCAQMD's CEQA Air Quality Handbook. The Air Quality Handbook refers to the following criteria as a means to determine a project's conformity with the AQMP:[18]

- *Consistency Criteria 1* refers to a proposed project's potential for resulting in an increase in the frequency or severity of an existing air quality violation or its potential for contributing to the continuation of an existing air quality violation.

- *Consistency Criteria 2* refers to a proposed project's potential for exceeding the assumptions included in the AQMP or other regional growth projections relevant to the AQMP's implementation.

In terms of Criteria 1, the proposed project's long-term (operational) airborne emissions would be below levels that the SCAQMD considers to be a significant impact (refer to the analysis included in the next section where the long-term stationary and mobile emissions for the proposed project are summarized in Table 3-2). The proposed project would also conform to Consistency Criteria 2 since it would not significantly affect any regional population, housing, and employment projections prepared for the City of Rancho Cucamonga. Projects that are consistent with their local general plan are considered consistent with the regional growth projections, since the RTP/SCS forms the basis of the land use and transportation control portions of the AQMP. The proposed project is consistent with the City's General Plan designation that is applicable to the project site.

In terms of Criteria 2, the proposed project would not conflict with the regional population forecast and distribution in the 2016 AQMP. The proposed project would feature five single-family homes. According to the U.S. Census Bureau, the average household size in the City of Rancho Cucamonga is 3.07 persons per household; therefore, the potential number of new residents that would be introduced by the proposed project would be 15 persons. The proposed project would involve the construction of five single-family residential units and would contribute to a limited population growth within the City. Therefore, the proposed project is well within SCAG's population projections for the City of Rancho Cucamonga and the proposed project would not violate Consistency Criteria 2. As a result, no impacts related to the implementation of the AQMP would result.

B. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard? ● Less than Significant Impact.

As indicated previously, the proposed project area is located in a non-attainment area for ozone and particulates (PM_{10} and $PM_{2.5}$); therefore, the proposed project would be required to comply with the requirements of SCAQMD *Rule 403, Fugitive Dust*, which requires the implementation of Best Available Control Measures (BACM) for all fugitive dust sources, and the 2016 AQMP, which identifies BACMs and

[18] South Coast Air Quality Management District. *CEQA Air Quality Handbook*. April 1993.

Best Available Control Technologies (BACT) for area sources and point sources, respectively. The construction of the proposed project must comply with *Rule 403*, which includes the following provisions:

- For all cities and counties within the SCAQMD region, all unpaved demolition and construction areas shall be regularly watered up to three times per day during excavation, grading, and construction as required (depending on temperature, soil moisture, wind, etc.). Watering could reduce fugitive dust by as much as 55 percent.

- Temporary dust covers shall be used on any piles of excavated or imported earth to reduce wind-blown dust.

- The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.

- All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of fugitive dust.

- All dirt/soil loads shall be secured by trimming, watering or other appropriate means to prevent spillage and dust.

- All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amount of dust.

- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.

- Trucks having no current hauling activity shall not idle but be turned off.

The contractors must also comply with the following regulatory compliance measures that are applicable to the proposed project's construction activities:

- In accordance with Sections 2485 in Title 13 of the California Code of Regulations, the idling of all diesel fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.

- In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

- The proposed project shall comply with South Coast Air Quality Management District Rule 1113 limiting the volatile organic compound content of architectural coatings.

The aforementioned regulations are standard conditions required for every construction project undertaken in the City as well as in the cities and counties governed by the SCAQMD.

The potential construction-related emissions from the proposed project were estimated using the computer model CalEEMod (V.2016.3.2) developed for the SCAQMD. The construction period is expected to last for approximately 10 months. As shown in Table 3-1, daily construction emissions would not exceed the SCAQMD thresholds of significance. Therefore, the construction-related impacts associated with the proposed project would be less than significant.

Table 3-1
Estimated Daily Construction Emissions

Construction Phase	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Site Preparation (on-site)	2.47	25.73	12.60	0.02	5.99	3.77
Site Preparation (off-site)	0.09	0.06	0.75	0.00	0.20	0.05
Total Site Preparation	**2.56**	**25.79**	**13.34**	**0.03**	**6.19**	**3.82**
Grading (on-site)	2.29	24.74	15.86	0.03	3.72	2.38
Grading (off-site)	0.25	6.75	1.66	0.02	0.70	0.20
Total Grading	**2.54**	**31.48**	**17.52**	**0.05**	**4.42**	**2.58**
Building Construction (on-site)	1.90	17.43	16.58	0.03	0.96	0.90
Building Construction (off-site)	0.05	0.32	0.43	0.00	0.12	0.03
Total Building Construction	**1.95**	**17.75**	**17.00**	**0.03**	**1.08**	**0.93**
Paving	1.01	9.52	12.19	0.02	0.49	0.45
Paving	0.09	0.06	0.76	0.00	0.22	0.06
Total Paving	**1.11**	**9.58**	**12.95**	**0.02**	**0.10**	**0.51**
Architectural Coatings (on-site)	2.24	1.41	1.81	0.00	10.08	0.08
Architectural Coatings (off-site)	0.01	0.01	0.08	0.00	0.02	0.01
Total Architectural Coatings	**2.25**	**1.41**	**1.89**	**0.00**	**0.10**	**0.09**
Maximum Daily Emissions	**2.56**	**31.48**	**17.52**	**0.05**	**6.19**	**3.82**
Daily Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod V.2016.3.2. and Ganddini Group, Inc.

Long-term emissions refer to those air quality impacts that would occur once the proposed project has been constructed and is operational. These impacts will continue over the operational life of the proposed project. The two main sources of operational emissions include mobile emissions and off-site emissions related to the production and consumption of energy. Table 3-2 depicts the estimated project operational emissions related to the proposed project's operation.

Table 3-2
Estimated Operational Emissions in lbs/day

Emission Source	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area-wide (lbs/day)	0.22	0.08	0.45	0.00	0.01	0.01
Energy (lbs/day)	0.00	0.04	0.02	0.00	0.00	0.00
Mobile (lbs/day)	0.10	0.65	1.19	0.00	0.35	0.10
Total (lbs/day)	**0.33**	**0.77**	**1.66**	**0.01**	**0.36**	**0.11**
Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod V.2016.3.2. and Ganddini Group, Inc.

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As indicated in Table 3-2, the projected long-term emissions are well below thresholds considered to represent a significant impact. Since the proposed project area is located in a non-attainment area for ozone and particulates (PM_{10} and $PM_{2.5}$), the contractors will be required to adhere to all pertinent provisions of SCAQMD Rule 403 pertaining to the generation of fugitive dust during grading and/or the use of equipment on unpaved surfaces.[19] The contractors would be responsible for being familiar with and implementing any pertinent best available control measures. As a result, less than significant impacts would occur.

C. Would the project expose sensitive receptors to substantial pollutant concentrations? ● Less than Significant Impact.

Sensitive receptors refer to land uses and/or activities that are especially sensitive to poor air quality and typically include residences, board and care facilities, schools, playgrounds, hospitals, parks, childcare centers, and outdoor athletic facilities, and other facilities where children or the elderly may congregate.[20] These population groups are generally more sensitive to poor air quality. The nearest sensitive receptors to the proposed project site include the single-family homes that are located adjacent to the proposed project site on all its sides. These sensitive receptors are shown in Exhibit 3-2.

The SCAQMD requires that CEQA air quality analyses indicate whether a proposed project would result in an exceedance of *localized emissions thresholds* or LSTs. LSTs only apply to emissions at a fixed location and do not include off-site or area-wide emissions. The pollutants that are the focus of the LST analysis include the conversion of NO_x to NO_2; carbon monoxide (CO) emissions; PM_{10} emissions; and $PM_{2.5}$ emissions. The use of the "look-up tables" is permitted since the construction of the proposed project would involve the disturbance of less than five acres of land area (the proposed project site has a total gross land area of 3.36 acres). For purposes of the LST analysis, the receptor distance used was 25 meters since the nearest existing homes were located approximately 25 meters from the construction activity areas at their nearest point.

[19] South Coast Air Quality Management District. *Rule 403, Fugitive Dust*. As Amended June 3, 2005.

[20] South Coast Air Quality Management District. *CEQA Air Quality Handbook, Appendix 9*. As amended 2017.

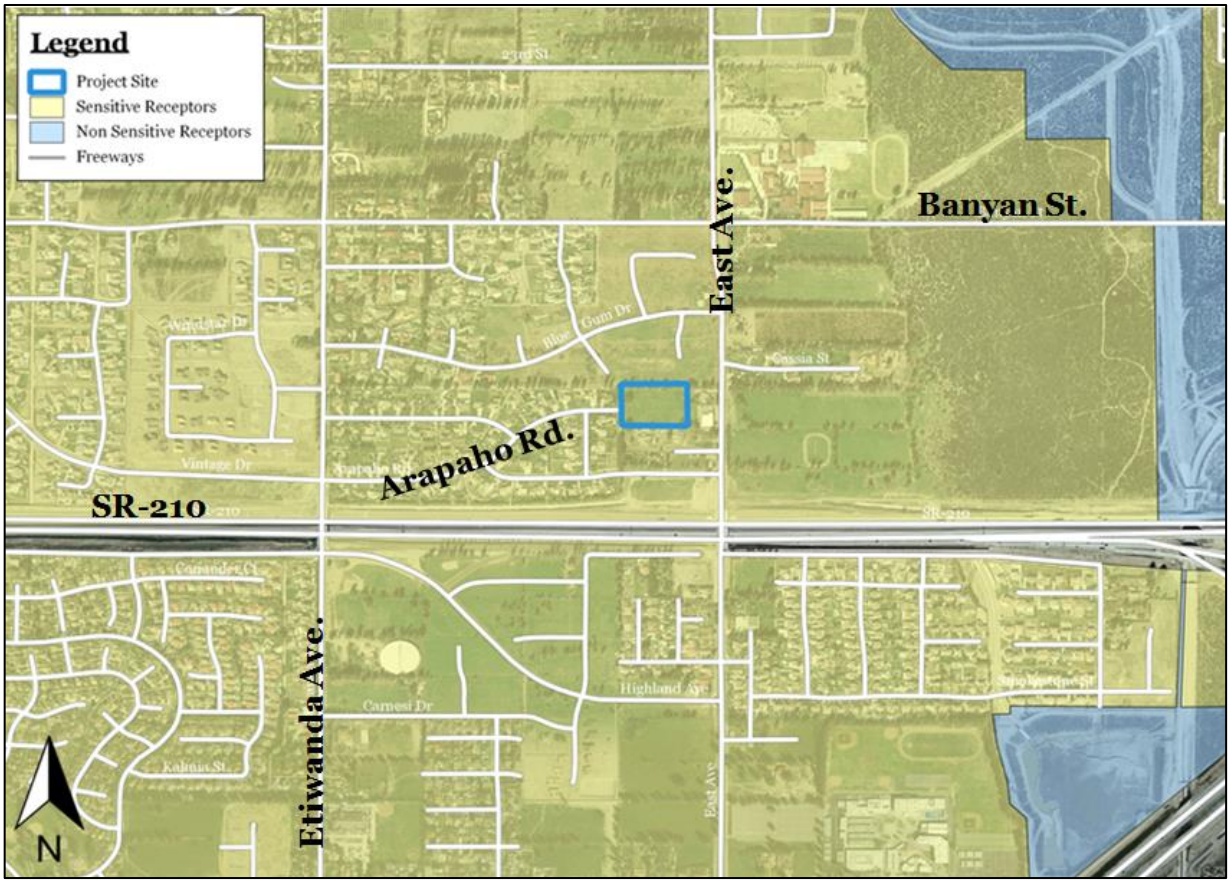

EXHIBIT 3-2
SENSITIVE RECEPTORS MAP
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

Table 3-3
Local Significance Thresholds Exceedance SRA 32

Emission Type	Project Emissions (lbs/day) *Unmitigated*	Project Emissions (lbs/day) *Mitigated*	Type	Allowable Emissions Threshold (lbs/day) and a Specified Distance from Receptor (in meters)				
				25	50	100	200	500
NO_x	42.47	42.47	Construction	**270**	303	378	486	778
CO	22.25	22.25	Construction	**2,193**	2,978	5,188	9,611	29,410
PM_{10}	20.47	9.45	Construction	**16**	50	80	140	322
$PM_{2.5}$	12.01	5.95	Construction	**9**	12	21	45	170

Source: CalEEMod V.2016.3.2.

As previously mentioned, the contractors would be required to adhere to all pertinent provisions of SCAQMD Rule 403 pertaining to the generation of fugitive dust during grading and/or the use of equipment on unpaved surfaces.[21] In addition, fugitive dust emission, which is responsible for PM_{10} and $PM_{2.5}$ emissions, would further be reduced through the implementation of SCAQMD regulations related to fugitive dust generation and other construction-related emissions. These SCAQMD regulations are standard conditions required for every construction project undertaken in the City as well as in the cities and counties governed by the SCAQMD. Table 3-3 includes both emissions *before* the implementation of standard conditions and afterwards. Since only one Rule 403 standard condition is included and calculated within the CalEEMod air quality model (watering of dirt surfaces three times daily), the emissions would be lower than those listed in Table 3-3.

Most vehicles generate carbon monoxide (CO) as part of the tail-pipe emissions; therefore, high concentrations of CO along busy roadways and congested intersections are a concern. The areas surrounding the most congested intersections are often found to contain high levels of CO that exceed applicable standards. These areas of high CO concentration are referred to as "hot-spots". Two variables influence the creation of a hot-spot and these variables include traffic volumes and traffic congestion. Typically, a hot spot may occur near an intersection that is experiencing severe congestion (a LOS E or LOS F).[22] The proposed project would generate approximately 50 daily trips, with 5 trips occurring during the PM peak hours (refer to Section 3.17.2.A herein). The projected peak hour traffic would not significantly degrade any local intersection's level of service (LOS E or F). It is the traffic congestion that would potentially result in the creation of a carbon monoxide hot spot. For this project, the future traffic would not result in the creation of a carbon monoxide hot spot. As a result, the potential impacts would be less than significant.

D. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? ● Less than Significant Impact.

The SCAQMD has identified those land uses that are typically associated with odor complaints. These uses include activities involving livestock, rendering facilities, food processing plants, chemical plants,

[21] South Coast Air Quality Management District. *Rule 403, Fugitive Dust*. As Amended June 3, 2005.

[22] "LOS" refers to "Level of Service." Refer to Section 3.17.2.A.

composting activities, refineries, landfills, and businesses involved in fiberglass molding.[23] The proposed project involves the construction of five residential units and would not involve odor-generating uses. Potential sources that may emit odors during construction include the use of architectural coatings, solvents, and asphalt paving. However, these construction-related emissions are temporary and will end once the construction phases have been completed. SCAQMD Rule 1108 and 1113 limits the amount of volatile organic compounds from cutback asphalt and architectural coatings and solvents, respectively. Compliance with these SCAQMD regulations would reduce potential impacts to levels that are less than significant. Once the homes are occupied, no odors are anticipated.

3.3.3 MITIGATION MEASURES

The analysis of air quality indicated that no impacts on these resources would occur as part of the proposed project's implementation. As a result, no mitigation is required.

3.4 BIOLOGICAL RESOURCES

3.4.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on biological resources if it results in any of the following:

- 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;

- 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;

- 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;

- A substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or the impedance of the use of native wildlife nursery sites;

- A conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or,

- A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community

[23] South Coast Air Quality Management District. *CEQA Air Quality Handbook, Appendix 9*. As amended 2017.

Conservation Plan, or other approved local, regional, or State habitat conservation plan.

3.4.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? ● No Impact.

The proposed project site is located among residential uses and is currently vacant and covered over in dirt and unmaintained ruderal vegetation. The proposed project site is enclosed with chain-link fencing and does not contain any trees or vegetation.[24] Due to the current state of the proposed project site and the level of development in the surrounding area, the proposed project site is not a suitable environment for any candidate, sensitive, or special status species. A review of the California Department of Fish and Wildlife Bios Viewer indicated that there are currently six threatened or endangered species located within the Cucamonga Peak Quadrangle (the proposed project site is within the Cucamonga Peak Quadrangle).[25] These species are identified below:

- The *southern mountain yellow-legged frog* is federally listed and State-listed as an endangered species. This frog is found in and around lakes, ponds, marshes, meadows, and streams within mountainous regions of California and Nevada.[26]

- The *coastal California gnatcatcher* is not likely to be found on-site due to the existing surrounding development and the lack of habitat suitable for the California gnatcatcher. The absence of coastal sage scrub, the coastal California gnatcatcher's primary habitat, further diminishes the likelihood of encountering such birds.[27]

- The *willow flycatcher* is State listed as an endangered bird species. This bird is small and has a fairly long, thin tail and wings. Its body is brownish olive with a slight yellow wash to the belly. They have two whitish wing bars and a white throat. They typically breed in shrubby areas with standing water or along streams.[28]

- The *southwestern willow flycatcher* is not likely to be found on-site due to the surrounding urban

[24] Blodgett Baylosis Environmental Planning. *Site survey*. Survey was conducted on August 29, 2019.

[25] California Department of Fish and Wildlife. *Bios Viewer*. https://map.dfg.ca.gov/bios/?tool=cnddbQuick. Website Accessed on December 21, 2018.

[26] California, State of. California Department of Forestry and Fire Protection. *Mountain Yellow-Legged Frog Species Information*. http://calfire.ca.gov/resource_mgt/downloads/Mountain_Yellow-Legged_Frog_SpeciesInformation.pdf. Mt. San Jacinto Natural History Association. *Southern Mountain Yellow-Legged Frog*. http://msjnha.org/mountain-yellow-legged-frog/.

[27] Audubon. *California Gnatcatcher (Polioptila californica)*. https://www.audubon.org/field-guide/bird/california-gnatcatcher.

[28] National Audubon Society. *Willow Flycatcher*. http://www.audubon.org/field-guide/bird/willow-flycatcher. The Cornell Lab of Ornithology. All About Birds. *Willow Flycatcher*. https://www.allaboutbirds.org/guide/Willow_Flycatcher/id.

development and the lack of habitat suitable riparian habitat for this bird species.[29]

- The *Crotch bumble bee* is not likely to be found on-site due to the existing surrounding development and the lack of habitat suitable for the Crotch bumble bee. This species is not likely to be found on-site due to the lack of open grassland and scrub within the proposed project site and the immediate area.[30]

- The *San Bernardino kangaroo rat* is a small rat of approximately 9 inches in length, tail included. This species occurs primarily in alluvial fan sage scrub (AFSS). As previously mentioned, AFSS occurs in washes and on gently sloping alluvial fans at the base of the San Gabriel Mountains. This species is not likely to be found on-site due to the existing surrounding development and the lack of habitat suitable for the San Bernardino kangaroo rat.[31]

The proposed project site is a flat parcel of land dominated by non-native grasses and annual herbs. The proposed project site has been periodically mowed and tilled. It is also important to note that the site is surrounded on all four sides by single-family residential development. Small piles of yard waste were observed around the perimeter of the property, likely from adjacent residents. Dominant non-native plant species included rip-gut brome (*Bromus diandrus*) and red-stemmed filaree (*Erodium cicutarium*). Numerous other species were observed including wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), white-stemmed filaree (*Erodium moschatum*), cheeseweed (*Malva parviflora*) and Lamb's quarters (*Chenopodium album*). One native herb, rancher's fiddleneck (*Amsinckia menzeisii*), occurred throughout the property. Nearly all of these species are common weedy plants that occur on vacant lots throughout Southern California.[32]

A previous site survey was completed in 2010 and since that time, the site was rough graded, and the outline of the cul-de-sac road and housing pads remain discernible. The site is dominated by Russian thistle (*Salsola tragus*), known more commonly as tumbleweed. Several other non-native weeds also occur including big-leaved crownbeard (*Verbesina encelioides*), puncture vine (*Tribulus terrestris*), and common horseweed (*Conyza canadensis*). Common native weeds include jimson weed (*Datura wrightii*), annual bursage (*Ambrosia acanthocarpa*), doveweed (*Eremocarpus setigerus*) and telegraph weed (*Heterotheca grandiflora*). No native shrubs that make up sage scrub habitats occupied by the California gnatcatcher were observed. No coastal sage scrub or alluvial fan sage scrub habitat suitable for the California gnatcatcher was documented on the project site during a habitat assessment conducted in 2010, and no suitable habitat occurs on the project site or in the immediate area currently. Based on the lack of suitable habitat, the apparent lack of habitat in the vicinity, and the lack of recent sightings of California gnatcatcher in the region,

[29] United State Geological Survey. *Southwestern Willow Flycatcher Habitat.* http://sbsc.wr.usgs.gov/cprs/research/projects/swwf/wiflhab.asp.

[30] NatureServe Explorer. http://explorer.natureserve.org/servlet/NatureServe?searchName=Bombus+crotchii. Website accessed August 12, 2019.

[31] San Bernardino County Department of Public Works. *San Bernardino Kangaroo Rat (Dipodomys parvus).* http://cms.sbcounty.gov/dpw/Land/especies/KangarooRat.aspx.

[32] Letter from Leatherman BioConsulting, Inc, dated October 2, 2019.

the California gnatcatcher is not expected to occur on the project site at this time.[33] Therefore, no impacts would occur.

B. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? ● No Impact.

As previously mentioned, there are five conservation areas located within the City and its Sphere of Influence area. A review of the U.S. Fish and Wildlife Service National Wetlands Inventory, Wetlands Mapper indicates that there are various waterways/wetlands within the City but does not identify any waterways/wetlands in the vicinity of the proposed project site (refer to Exhibit 3-3).[34] Due to the current state of the proposed project site and the level of development in the surrounding area, the proposed project site does not offer a suitable habitat for any of the aforementioned rare and/or endangered species. As a result, no impacts on natural or riparian habitats would result from the proposed project's implementation.

C. Would the project have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ● No Impact.

As indicated in the previous subsection, the proposed project site and adjacent properties do not contain any natural wetland and/or riparian habitat.[35] A review of the U.S. Fish and Wildlife Service National Wetlands Inventory, Wetlands Mapper indicates that there are various waterways/wetlands within the City but does not identify any waterways/wetlands in the vicinity of the proposed project site (refer to Exhibit 3-3).[36] As a result, the proposed project would not impact any protected wetland area and no impacts would occur.

D. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or impede the use of native wildlife nursery sites? ● No Impact.

The site is surrounded by development and lacks suitable habitat for wildlife habitat. Furthermore, the site contains no natural hydrological features. Furthermore, the proposed project site is enclosed with chain-link fencing and does not contain any trees or vegetation.[37] Since the site is surrounded by development on all sides and lacks suitable habitat, the site's utility as a migration corridor is restricted. Therefore, no impacts would result from the implementation of the proposed project.

[33] Letter from Leatherman BioConsulting, Inc, dated October 2, 2019.

[34] United States Fish and Wildlife Service. *National Wetlands Inventory*. https://www.fws.gov/Wetlands/data/Mapper.html.

[35] Ibid.

[36] United States Fish and Wildlife Service. *National Wetlands Inventory*. https://www.fws.gov/Wetlands/data/Mapper.html.

[37] Blodgett Baylosis Environmental Planning. *Site survey*. Survey was conducted on August 29, 2019.

E. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ● No Impact.

As previously mentioned, there are five conservation areas located within the City and its Sphere of Influence area. The proposed project would not conflict with any local policies or ordinances protecting biological resources. The proposed project site is currently vacant and covered over in dirt and will involve the construction of five single-family homes. Furthermore, the proposed project would not conflict with a tree preservation policy or ordinance because there are no trees located within the proposed project site or within the adjacent right-of-way.[38] As a result, no impacts would occur.

F. 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? ● No Impact.

As previously mentioned, there are five conservation areas located within the City and its Sphere of Influence area. The proposed project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The proposed project site is currently vacant and covered over in dirt and would involve the construction of five single-family homes.[39] As a result, no impacts would occur.

3.4.3 MITIGATION MEASURES

The analysis of biological resources indicated that no impacts on these resources would occur as part of the proposed project's implementation. As a result, no mitigation is required.

[38] Blodgett Baylosis Environmental Planning. *Site survey*. Survey was conducted on August 29, 2019.

[39] Ibid.

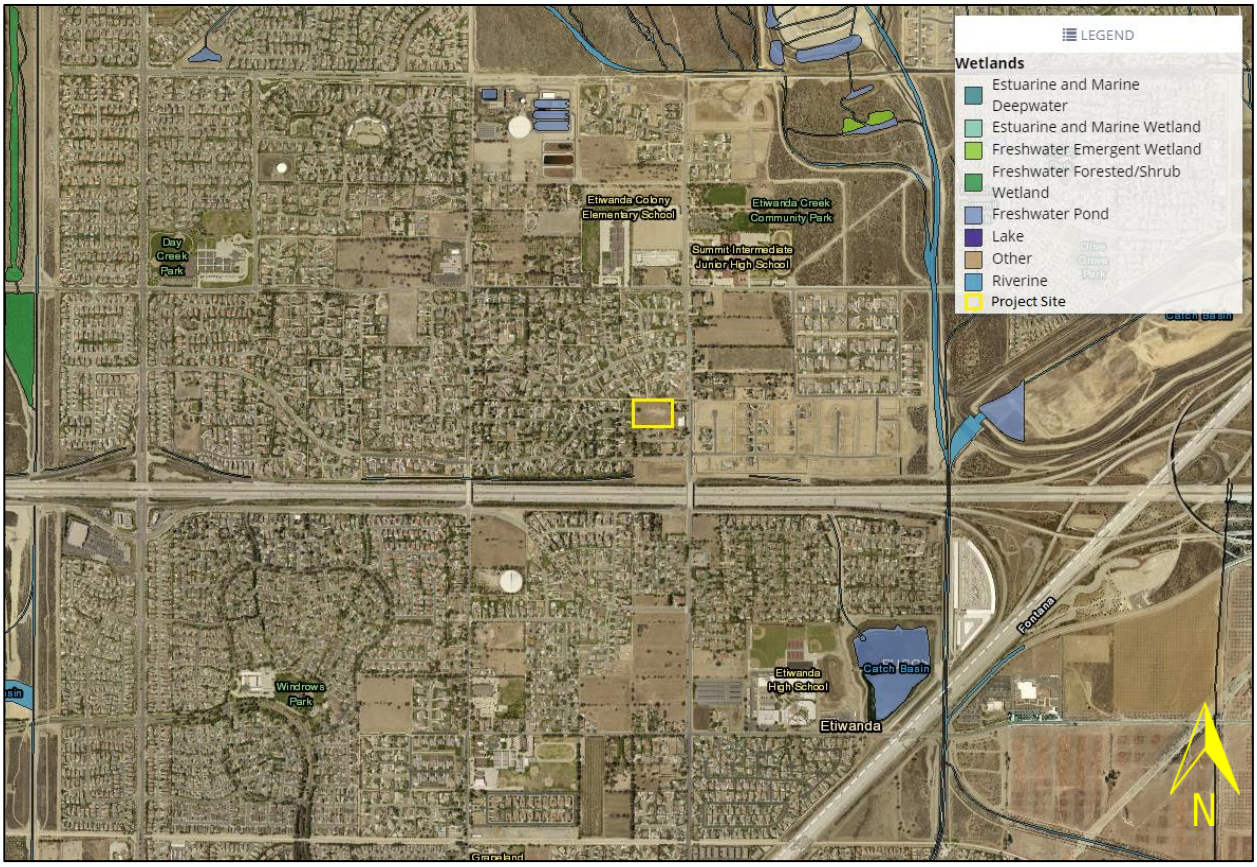

EXHIBIT 3-3
WETLANDS MAP
SOURCE: NATIONAL WETLANDS INVENTORY

3.5 CULTURAL RESOURCES

3.5.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may have a significant adverse impact on cultural resources if it results in any of the following:

- A substantial adverse change in the significance of a historical resource pursuant to §15064.5 of the CEQA Guidelines;

- A substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines;

- The disturbance of any human remains, including those interred outside of dedicated cemeteries.

3.5.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5 of the CEQA Guidelines? ● No Impact.*

The proposed project site is vacant and undeveloped though it appears to have been periodically mowed or tilled and is surrounded on all four sides by residential development. Small piles of yard waste were observed around the perimeter of the property, likely from adjacent residents. On-site vegetation consists of non-native, invasive plant species. The site also appears to have been rough graded though the outline of the cul-de-sac road and housing pads remain discernible.

Historic structures and sites are defined by local, State, and Federal criteria. A site or structure may be historically significant if it is locally protected through a local General Plan or historic preservation ordinance. A site or structure may be historically significant according to State or Federal criteria even if the locality does not recognize such significance. The State, through the State Historic Preservation Office (SHPO), maintains an inventory of those sites and structures that are considered to be historically significant. Finally, the U.S. Department of Interior has established specific Federal guidelines and criteria that indicate the manner in which a site, structure, or district is to be defined as having historic significance and in the determination of its eligibility for listing on the National Register of Historic Places.[40] To be considered eligible for the National Register, a property's significance may be determined if the property is associated with events, activities, or developments that were important in the past, with the lives of people who were important in the past, or represents significant architectural, landscape, or engineering elements. Specific criteria include the following:

[40] U. S. Department of the Interior, National Park Service. *National Register of Historic Places*. http://focus.nps.gov/nrhp.

- Districts, sites, buildings, structures, and objects that are associated with the lives of significant persons in the past;

- Districts, sites, buildings, structures, and objects that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,

- Districts, sites, buildings, structures, and objects that have yielded or may be likely to yield, information important in history or prehistory.

Ordinarily, properties that have achieved significance within the past 50 years are not considered eligible for the National Register. However, such properties *will qualify* if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A religious property deriving primary significance from architectural or artistic distinction or historical importance;

- Districts, sites, buildings, structures, and objects that are associated with events that have made a significant contribution to the broad patterns of our history;

- A building or structure removed from its original location that is significant for architectural value, or which is the surviving structure associated with a historic person or event;

- A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life;

- A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events;

- A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived;

- A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or,

- A property achieving significance within the past 50 years if it is of exceptional importance.[41]

[41] U. S. Department of the Interior, National Park Service. *National Register of Historic Places*. http://focus.nps.gov/nrhp. Website accessed September 12, 2019.

A search of the National Historic Register indicated that two federally designated historic sites are located within the City:[42]

- Pacific Electric Etiwanda Depot, located at 7092 Etiwanda Avenue.
- John Rains House, located at 7869 Vineyard Avenue.

A search of the State Historic Register indicated that five State-designated historic sites are located within the City:[43]

- Christmas House, located at 9240 Archibald Avenue.
- Cucamonga Chinatown Site, located at 9591 San Bernardino Road.
- Cucamonga Rancho Winery, located at 8916 Foothill Boulevard.
- Milliken Ranch, located west of Haven Avenue and Arrow Route.
- Sycamore Inn, located at 8318 Foothill Boulevard.

The proposed project site does not meet, or contain any structures that meet, any of the aforementioned criteria. The proposed project would be limited to the proposed project site and would not affect any existing resources listed on the National or State Register or those identified as being eligible for listing on the National or State Register. As a result, no impacts would be associated with the proposed project's implementation.

B. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines? ● Less than Significant Impact with Mitigation.

The proposed project site is located among residential uses and has previously been modified and graded. The proposed project site is underutilized and covered over in dirt. Although the proposed project site and the surrounding areas have been subject to disturbance, the proposed project site is situated in an area of high archaeological significance. In addition, the proposed project would require grading. As a result, a mitigation measure is provided both in Section 3.5.3 and in Section 3.18 (Tribal Cultural Resources) to ensure that a tribal representative is present during construction-related ground-disturbing activities. Title 14; Chapter 3; Article 5; Section 15064.5 of CEQA would apply in terms of the identification of significant archaeological resources and their salvage. As a result, the impacts would be less than significant with the implementation of the required mitigation..

[42] U. S. Department of the Interior, National Park Service. *National Register of Historic Places*. http://focus.nps.gov/nrhp. Website accessed September 12, 2019.

[43] California State Parks, Office of Historic Preservation. *Listed California Historical Resources*. Website accessed September 12, 2019.

C. Would the project disturb any human remains, including those interred outside of dedicated cemeteries? ● Less than Significant Impact.

There are no dedicated cemeteries located within or adjacent to the proposed project site boundaries.[44] The proposed project would be restricted to the designated project site and would not affect any dedicated cemeteries. In addition, the proposed construction is not likely to neither discover nor disturb any on-site burials due to the level of urbanization present and the amount of disturbance sustained to accommodate the surrounding development. Ground disturbance would involve grading and earth-clearing activities for the installation of the grass and landscaping and other on-site improvements. In the unlikely event that remains are uncovered by construction crews, all excavation and grading activities shall be halted, and the San Bernardino County Sheriff's Department would be contacted (the Department will then contact the County Coroner). In the even human remains are encountered during grading, certain requirements governed by the California Health and Safety Code (Section 7050.5) and Public Resources Code (PRC) Section 5097.98. These Code requirements state that when Native American human remains are encountered, the County Coroner must be notified who will then then immediately notify those persons it believes to be most likely descended from the deceased Native American. In addition, a mitigation measure is provided in Section 3.18 (Tribal Cultural Resources) to ensure that a tribal representative is present during construction-related ground-disturbing activities. As a result, the proposed construction activities are not anticipated to impact any interred human remains and the impacts would be less than significant.

3.5.3 MITIGATION MEASURES

Although parts of the proposed project site have been subject to disturbance to accommodate the existing structures, the project site is situated in an area of high archaeological significance. As a result, the following mitigation is required to address the potential impacts on cultural resources:

Mitigation Measure No. 1 (Cultural Resources). The Project Applicant shall be required to retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and is listed under the NAHC's Tribal Contact list for the area of the project location. This list is provided by the NAHC. The monitor/consultant will only be present on-site during the construction phases that involve ground disturbing activities. Ground disturbing activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that may include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor/consultant will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

Mitigation Measure No. 2 (Cultural Resources). Upon discovery of any archaeological resources, cease construction activities in the immediate vicinity of the find until the find can be assessed. All archaeological resources unearthed by project construction activities shall be evaluated by the qualified

[44] Google Earth. Website accessed December 27, 2018.

archaeologist and tribal monitor/consultant approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section15064.5 [f]) for historical resources..

Mitigation Measure No. 3 (Cultural Resources). If a resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes.

Mitigation Measure No. 4 (Cultural Resources). Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) and PRC 5097.98 shall be followed. Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes.

Mitigation Measure No. 5 (Cultural Resources). Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact,

by telephone within 24 hours, the Native American Heritage Commission (NAHC) and PRC 5097.98 shall be followed.

Mitigation Measure No. 6 (Cultural Resources). Upon discovery, the tribal and/or archaeological monitor/consultant/consultant will immediately divert work at minimum of 150 feet and place an exclusion zone around the burial. The monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) as mandated by state law who will then appoint a Most Likely Descendent (MLD).

Mitigation Measure No. 7 (Cultural Resources). If the Gabrieleno Band of Mission Indians – Kizh Nation is designated MLD, the following treatment measures shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. These remains are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects.

Mitigation Measure No. 8 (Tribal Cultural Resources). Prior to the continuation of ground disturbing activities, the land owner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. The Tribe will work closely with the qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be taken which includes at a minimum detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. Cremations will either be removed in bulk or by means as necessary to ensure completely recovery of all material. If the discovery of human remains includes four or more burials, the location is considered a cemetery and a separate treatment plan shall be created. Once complete, a final report of all activities is to be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive diagnostics on human remains. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

3.6 ENERGY

3.6.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on the environment if it results in the following:

- A potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; or,

- A conflict with or obstruction of a State or local plan for renewable energy or energy efficiency.

3.6.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? ● Less than Significant Impact.

The proposed project would involve the construction of five single-family home units. The proposed project would involve energy and natural gas consumption related to residential uses, which would not differ from the immediate surrounding single-family home uses. Table 3-4 below provides an estimate of electrical and natural gas consumption for the proposed project. As indicated in the table, the proposed project is estimated to consume approximately 109,610 kilowatts (kWh) of energy on an annual basis.

Table 3-4
Estimated Annual Energy Consumption

Project	Consumption Rate	Total Project Consumption
Electrical Consumption	35.2 million Btu/household/yr 10,316 kWh/household/yr	176 million Btu/yr 51,580 kWh/yr
Natural Gas Consumption	49.9 million Btu/household/yr 14,624 kWh/household/yr	250 million Btu/yr 73,120 kWh/yr
Total*	**74.8 million Btu/household/yr 21,922 kWh/household/yr**	**374 million Btu/yr 109,610 kWh/yr**

*Total energy consumption includes electrical, natural gas, propane and fuel oil/kerosene consumption.
Consumption for biomass (wood), coal, district steam, and solar thermal are excluded.
Electricity consumption from on-site solar photovoltaic generation (i.e., solar panels) is included.
Source: 2015 Residential Energy Consumption Survey (RECS) Survey Data.

It is important to note that the proposed project would include energy efficient fixtures. In addition, the energy consumption rates do not reflect the more stringent 2016 California Building and Green Building Code requirements. The proposed project would be in accordance with the City's Building Code requirements and with Part 6 and Part 11 of Title 24 of the California Code of Regulations. Title 24 of the California Code of Regulations establishes energy conservation standards for new construction. These standards relate to insulation requirements, glazing, lighting, shading, and water and space heating systems.

Adherence to the above-mentioned regulations would reduce potential impacts to levels that are less than significant.

B. Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency? ● No Impact.

The California Public Utilities Commission prepared an updated Energy Efficiency Strategic Plan in 2011 with the goal of promoting energy efficiency and a reduction in Greenhouse Gases (GHG). Assembly Bill 1109, which was adopted in 2007, also serves as a framework for lighting efficiency. This bill would require the State Energy Resources Conservation and Development Commission to adopt minimum energy efficiency standards structured to reduce average statewide electrical energy consumption by not less than 50% from the 2007 levels for indoor residential lighting and not less than 25% from the 2007 levels for indoor commercial and outdoor lighting by 2018. As indicated previously, the proposed project would involve energy and natural gas consumption related to residential uses, which would not differ from the immediate surrounding single-family home uses. Adherence to the City's Building Code requirements and with Part 6 and Part 11 of Title 24 of the California Code of Regulations would ensure conformance with the State's goal of promoting energy and lighting efficiency. As a result, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and no impacts would occur.

3.6.3 MITIGATION MEASURES

The preceding analysis concluded that the proposed project would not result in any significant impacts that would warrant mitigation.

3.7 GEOLOGY & SOILS

3.7.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on the environment if it results in the following:

- 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;

- Substantial soil erosion or the loss of topsoil;

- Location of the project 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;

- Location of the project on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2012), creating substantial direct or indirect risks to life or property;

- The project having 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; or,

- The direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.

A geotechnical report was prepared for the project site by Associated Soils Engineering, Inc.

3.7.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. 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; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or, landslides? ● Less than Significant Impact.

The City of Rancho Cucamonga is located in a seismically active region (refer to Exhibit 3-4). Many major and minor local faults traverse the entire Southern California region, posing a threat to millions of residents, including those who reside in the City. Rancho Cucamonga, like the rest of southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional faults such as the San Andreas, San Jacinto, Newport-lnglewood and Whittier-Elsinore fault zones. The Etiwanda Avenue Fault is the closest known fault to the proposed project site. This fault is located approximately one mile to the north.[45] The proposed project site is not located within the fault zone of the Etiwanda Avenue Fault (refer to Exhibit 3-4). The Site is likely to be subject to strong seismic ground shaking during the life of the project. The Cucamonga Fault, located approximately 2.0 miles (3.2 km) away is closest to the Site. Other nearby active faults include the San Jacinto-San Bernardino Fault and the San Andreas Fault, located approximately 5.4 miles (8.7 km) and 9.3 miles (15.0 km) away, respectively.[46] The potential impacts in regard to ground shaking and fault rupture are less than significant since the risk is no greater in and around the proposed project site than for the rest of the area. According to the United States Geological Survey (USGS), liquefaction is the process by which water-saturated sediment temporarily loses strength and acts as a fluid. Essentially, liquefaction is the process by which the ground soil loses strength due to an increase in water pressure following seismic activity. The proposed project site is not located in an area that is subject to liquefaction (refer to Exhibit 3-5).

[45] Toll-Free Airline. *Los Angeles County Public and Private Airports, California.* http://www.tollfreeairline.com/california/losangeles.htm.

[46] Associated Soils Engineering, Inc. *Soil Report and Geotechnical Study prepared for Manning Homes.* February 20 2014.

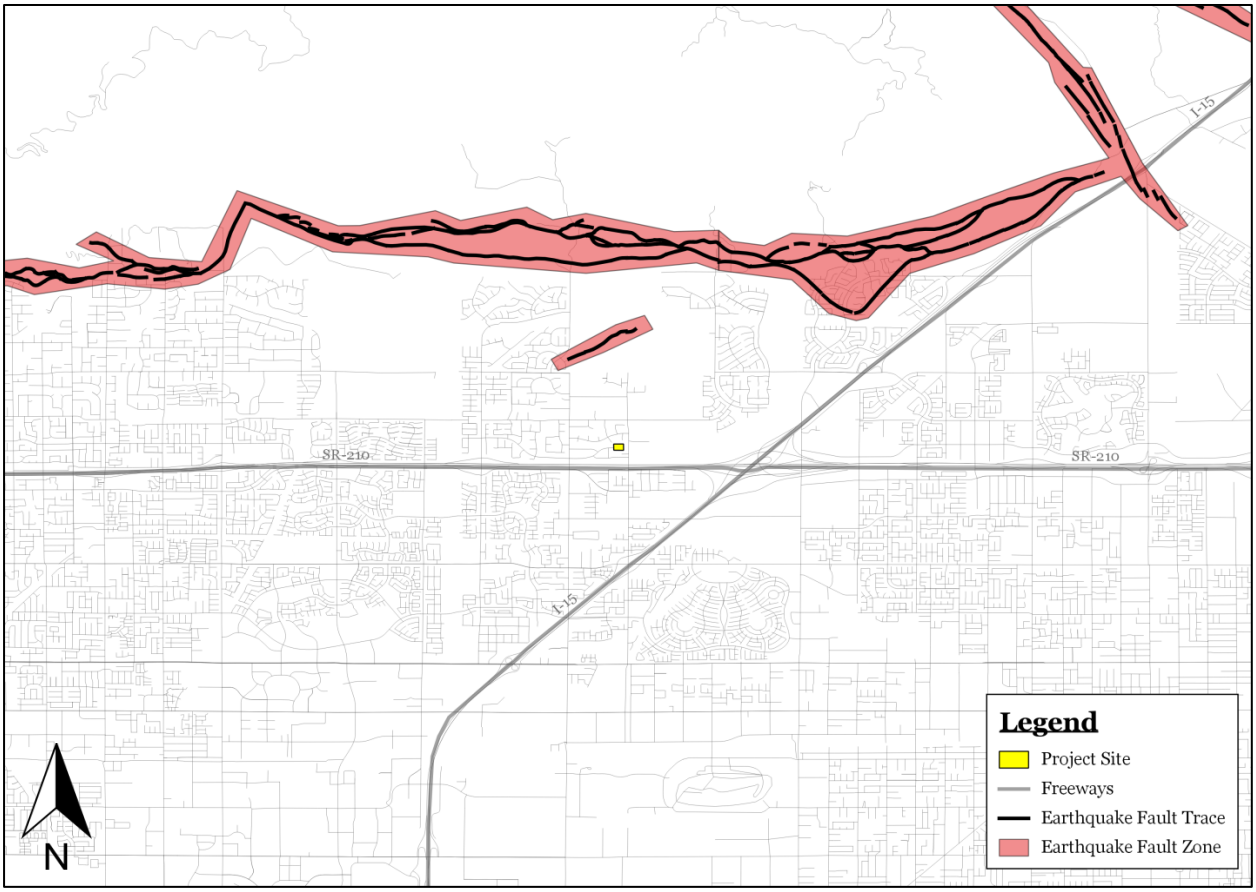

EXHIBIT 3-4
NEARBY FAULTS
SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION

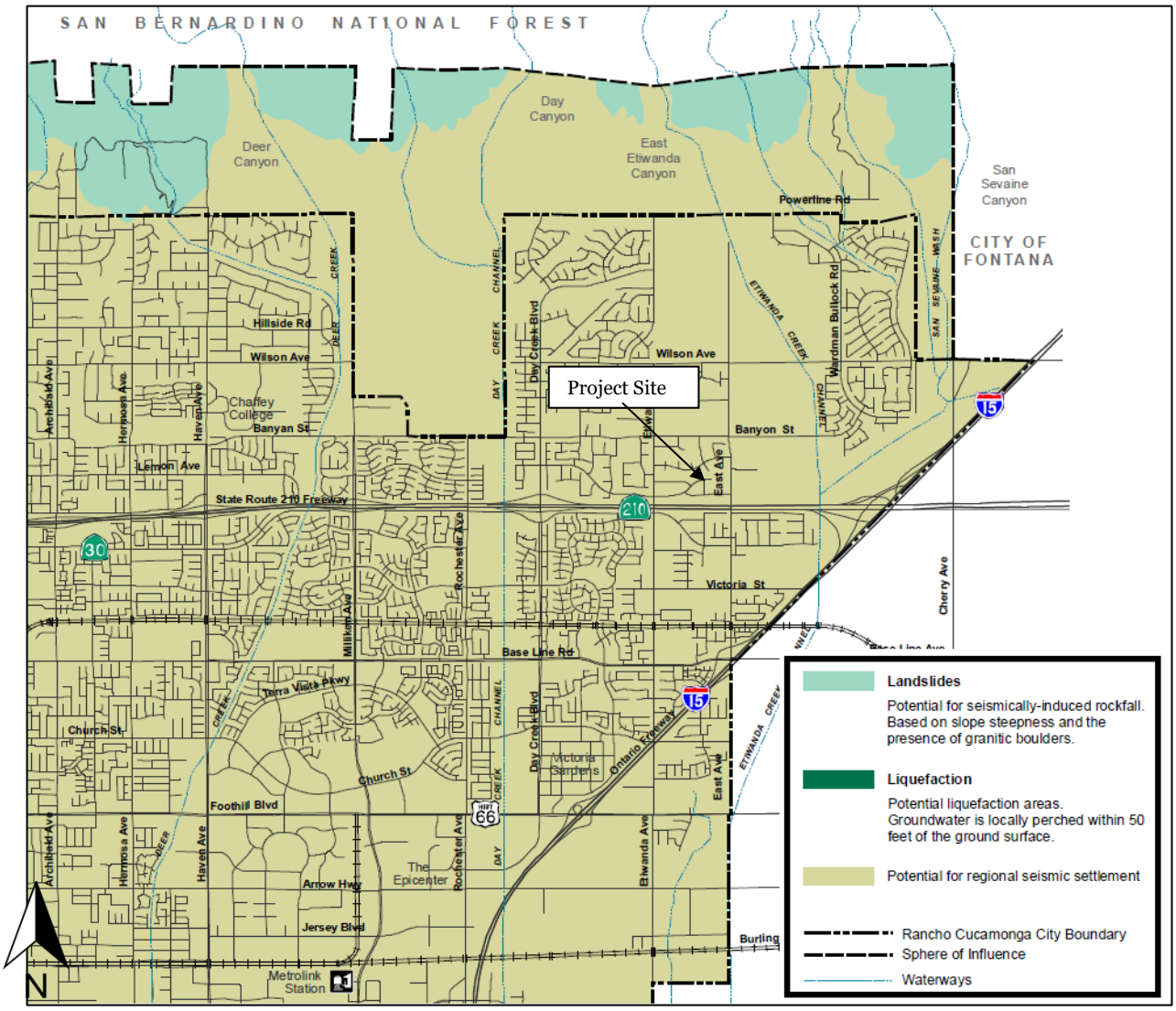

EXHIBIT 3-5
GEOTECHNICAL HAZARDS
SOURCE: CITY OF RANCHO CUCAMONGA GENERAL PLAN

Lastly, the proposed project site is level and, as a result, is not subject to the risk of landslides (refer to Exhibit 3-5). As a result, the potential impacts in regard to ground-shaking, liquefaction, and landslides would be less than significant because the risk is no greater in and around the proposed project site than for the rest of the area.

B. Would the project result in substantial soil erosion or the loss of topsoil? ● No Impact.

The United States Department of Agriculture's (USDA) Web Soil Survey was consulted to determine the nature of the soils that underlie the proposed project site. According to the USDA Web Soil Survey, the site is underlain by soils of the Tujunga gravelly loamy sand association, 0 to 9 percent slopes.

These soils have a low runoff and erosion hazard; furthermore, construction activities and the placement of permanent vegetative cover would reduce the soil's erosion risk.[47] The site is, and would continue to be, level and no slope failure or landslide impacts would occur. Furthermore, construction is regulated by Chapter 19.04 (Grading Standards) of the Rancho Cucamonga Municipal Code. The Rancho Cucamonga Municipal Code provides requirements for construction, grading, excavations, use of fill, and foundation work including type of materials, design, procedures, etc., which are intended to limit the probability of occurrence and the severity of consequences from sedimentation and erosion. In addition, all grading activities require grading permits from the Department of Building and Safety, which include requirements and standards designed to limit potential impacts to acceptable levels. Compliance with regulatory measures would ensure a less than significant impact would occur with respect to erosion or loss of topsoil during the construction phase. The potential for soil erosion during the occupancy of the building is low due to the generally level topography of the proposed project site, and the fact that the site would be covered over in impervious surfaces with limited soil being exposed. As a result, impacts would be less than significant.

C. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ● Less than Significant Impact.

Lateral spreading is a phenomenon that is characterized by the horizontal, or lateral, movement of the ground. Lateral spreading could be liquefaction-induced or may be the result of excess moisture within the underlying soils. Lateral spreading, a phenomenon associated with seismically induced soil liquefaction, is a display of lateral displacement of soils due to inertial motion and lack of lateral support during or post liquefaction. It is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface such as drainage or stream channel. Since there is no presence of "free surface" (unlined slopes, excavations, channels, etc.) on or near by the Site, the potential for the occurrence of seismically induced lateral spreading is unlikely on the site.

Ground accelerations emitted from a seismic event can cause densification of loose soils both above and below the groundwater table that may result in settlements on ground surface due to volumetric compression of soil mass. This phenomenon is often referred to as seismic settlement and commonly takes

[47] United States Department of Agriculture. *Web Soil Survey*. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

place in relatively clean sands, as well as soils with low plasticity and less fines. Although the earth materials on site consist of loose to very dense silty sands and sands with silt and gravel, and firm to very stiff fine-grained soils, and the granular and silty soils are considered non-liquefiable due to deep groundwater beneath the site, they may still undergo seismically induced settlement during a major earthquake. Settlement as a result of seismically induced volumetric densification in these soil strata above groundwater level during a MCE event is anticipated to be less than one (1) inch with negligible differential settlement across each building pad due to the relatively uniform geology in the vicinity of the site. As a result, the impacts will be less than significant.

D. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2012), creating substantial direct or indirect risks to life or property? ● Less than Significant Impact.

According to the USDA Web Soil Survey, the soils that underlie the proposed project site possess a low shrink swell potential. Shrinking and swelling is influenced by the amount of clay present in the underlying soils. As mentioned in the previous section (Section 3.7.2.C), the Tujunga gravelly loamy sand soils that underlie the proposed project site are composed of little to no amounts of clay, therefore a potential for subsidence does not exist. Furthermore, construction is regulated by Title 15 (Buildings and Construction) of the Rancho Cucamonga Municipal Code. The Rancho Cucamonga Municipal Code provides requirements for construction, grading, excavations, use of fill, and foundation work including type of materials, design, procedures, etc. Prior to grading operations, it will be necessary to remove any remaining existing improvements, including any remaining buried obstructions, which may be in the areas of proposed construction. Structure removal should include foundations. Concrete flatwork, if present, should also be removed from areas of proposed construction. Concrete fragments from site demolition operations should be disposed of off-site, unless they can be stockpiled and processed to meet the specifications for crushed miscellaneous base, processed miscellaneous base, or pulverized miscellaneous base as outlined in Sections 200-2.4, 200-2.5 or 200-2.8, respectively, of the latest edition of the Standard Specifications for Public Works Construction and reused as Select Fill or base material. Compliance with regulatory measures would ensure a less than significant impact would occur with respect to expansive soils.

E. 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? ● Less than Significant Impact.

Septic tank systems will be used to handle waste that will be generated by the proposed residential units. The Applicant retained the services of a geotechnical consultant to evaluate the ability of the subsurface soils to handle the proposed septic tank systems. The study prepared by Associated Soils Engineering, Inc. concluded that the underling soils would not present a constraint the proposed project site's development. As a result, the potential impacts would be less than significant.

F. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ● Less than Significant Impact.

Although the proposed project site is not currently developed, the surrounding project area is fully developed and has undergone disturbance as part of previous development. For this reason, the likelihood of discovering near surface paleontological resources is considered remote. According to the State of California Geological Survey, the site's geology is classified as "Young Alluvial Fan Deposits" (Qyf).[48] Alluvial soil deposits that are present in a natural and undisturbed condition may contain paleontological resources, though these resources are more typically found in marine terraces and shales. These alluvial soils were encountered in each of ASE's borings to the maximum explored depth of 25 feet. For the most part, the majority of the grading activities will be above this elevation so as to remove the artificial fill. The on-site soils that underlie the property are Holocene-aged deposits that have a low potential for the discovery of paleontological resources. However, based on a records search conducted for the City by the San Bernardino County Museum, previous geologic mapping of the City and the Sphere of Influence area indicates that soils and geologic formations within the City and the Sphere of Influence area have a low potential to contain significant paleontological resources. In the event that evidence of such resources is discovered during excavation, all work within the vicinity would stop until a qualified paleontologist could assess the find. As a result, the potential impacts would be less than significant.

3.7.3 MITIGATION MEASURES

The analysis determined that the proposed project would not result in any significant impacts related to geology and soils. As a result, no mitigation measures are required.

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 THRESHOLDS OF SIGNIFICANCE

A project may be deemed to have a significant adverse impact on greenhouse gas emissions if it results in any of the following:

- The generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or,

- A conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

3.8.2 ENVIRONMENTAL ANALYSIS

A. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ● Less than Significant Impact.*

Greenhouse gas (GHG) emissions refer to a group of emissions that have the potential to trap heat in the

[48] California Geological Survey. *Compilation of Quaternary Surficial Deposits*. Website accessed August 9, 2019.

atmosphere and consequently affect global climate conditions. Scientific studies have concluded that there is a direct link between increased emission of GHGs and long-term global temperature. The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF_3), and water vapor (H_2O). CO_2 is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2E).

Scientific evidence indicates there is a correlation between increasing global temperatures/climate change over the past century and human-induced levels of GHG. These and other environmental changes have potentially negative environmental, economic, and social consequences around the globe. GHG differ from criteria or toxic air pollutants in that the GHG emissions do not cause direct adverse human health effects. Rather, the direct environmental effect of GHG emissions is the increase in global temperatures, which in turn has numerous impacts on the environment and humans. For example, some observed changes to include shrinking glaciers, thawing permafrost, late freezing and early break-up of ice on rivers and lakes, a lengthened growing season, shifts in plant and animal ranges, and earlier flowering of trees. Other, longer term environmental impacts of global warming may include a rise in sea level, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems, including the potential loss of species, and a significant reduction in winter snow pack.

It is important to note that the proposed project is an "infill" development, which is seen as an important strategy in combating the release of GHG emissions. Infill development provides a regional benefit in terms of a reduction in Vehicle Miles Traveled (VMT) since the proposed project is consistent with the regional and State sustainable growth objectives identified in the State's Strategic Growth Council (SGC).[49] Infill development reduces VMT by recycling existing undeveloped or underutilized properties located in established urban areas.

The proposed project would involve the construction of five single-family homes. The proposed project's operational GHG emissions were calculated using the CalEEMod Version 2016.3.2. The type of activities that may be undertaken once the proposed project is operational have been predicted and accounted for in the model for the selected land use type. The SCAQMD has established a single quantified threshold of 3,000 metric tons of CO_2E ($MTCO_2E$) per year for new residential development.[50] Carbon dioxide equivalent, or CO_2E, is a term that is used for describing different greenhouses gases in a common and

[49] *California Strategic Growth Council. http://www.sgc.ca.gov/Initiatives/infill-development.html. Promoting and enabling sustainable infill development is a principal objective of the SGC because of its consistency with the State Planning Priorities and because infill furthers many of the goals of all of the Council's member agencies. Focusing growth toward infill areas takes development pressure off conservation lands and working lands; it increases transit rider-ship and reduces vehicle trips; it requires less per capita energy and water use than less space-efficient development; it improves public health by promoting active transportation and active lifestyles; and it provides a more equitable mix of housing choices, among other benefits.*

[50] SCAQMD. *Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15.* https://planning.lacity.org/eir/8150Sunset/References/4.E.%20Greenhouse%20Gas%20Emissions/GHG.39_SCAQMD%20GHG%20Meeting%2015.pdf.

collective unit. Table 3-5 summarizes annual greenhouse gas (CO_2E) emissions from build-out of the proposed project.[51]

Table 3-5
Greenhouse Gas Emissions Inventory

Source	GHG Emissions (Lbs/Day)			
	CO_2	CH_4	N_2O	CO_2E
Maximum Construction Emissions	3,891.10	1.20	--	3,921.04 lbs/day
Total Construction Emissions				**649 $MTCO_2E$/year**
Long-term Area Emissions	0.74	7.20e-4	--	0.76 lbs/day
Long-term Energy Emissions	49.31	9.50e-4	9.00e-4	49.60 lbs/day
Long-term Mobile Emissions	458.64	0.02	--	459.19 lbs/day
Total Long-term Emissions	508.69	0.02	9.00e-4	509.55 lbs/day
Total Long-term Emissions ($MTCO_2E$)				**84 $MTCO_2E$/year**

Source: CalEEMod V.2016.3.2

As indicated in Table 3-5, the CO_2E total (operational) for the proposed project is 509.55 pounds per day or 0.23 $MTCO_2E$ per day. This translates into an annual emission of 84 $MTCO_2E$. The CO_2E total (construction) for the proposed project is 3,921.04 pounds per day or 1.78 $MTCO_2E$ per day. This translates into an annual emission of 649 $MTCO_2E$. As a result, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and the potential impacts would be less than significant.

B. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases? ● No Impact.

The City of Rancho Cucamonga adopted the Sustainable Community Action Plan in 2017. The Plan states that in total, existing actions, state programs, and the goals, policies, and actions identified in the Sustainable Community Action Plan will reduce GHG emissions in Rancho Cucamonga up to 16.9 percent by the year 2020. The proposed project would not be in conflict with the goals and policies listed within each of the following categories: Transportation & Mobility, Land Use & Open Space, Energy Efficiency & Renewables, Green Building Performance, Water & Wastewater, and Waste & Recycling.[52]

As indicated previously, the operation of the proposed project would result in an incremental increase in GHG emissions. However, the operation of the proposed project would result in less than significant GHG emissions. The proposed project would not introduce any conflicts with adopted initiatives that are designed to control future GHG emissions. The proposed project is an infill development and is seen as an important strategy in reducing regional GHG emissions. As a result, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases and no impacts would occur.

[51] *The CalEEMod Air Quality Worksheets are provided in Appendix A.*

[52] Rancho Cucamonga, City of. *Rancho Cucamonga Sustainable Community Action Plan*. April 2017.

3.8.3 MITIGATION MEASURES

The analysis of potential impacts related to GHG emissions indicated that the proposed project would not result in any adverse impacts. As a result, no mitigation measures are required.

3.9 HAZARDS & HAZARDOUS MATERIALS

3.9.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact regarding hazards or hazardous materials if it results in any of the following:

- The creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- The creation of 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 emission of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- The location of the project 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, the creation of a significant hazard to the public or the environment;
- A safety hazard or excessive noise for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport;
- The impairment of the implementation of or the physical interference with an adopted emergency response plan or emergency evacuation plan; or,
- The exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

3.9.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ● No Impact.

The proposed project would involve the construction of five single-family homes. During construction activities, requirements must be adhered to regarding the transport and handling of fuels and lubricants for the construction equipment used on-site. In the event of a fuel spill, measures must be taken to quickly clean

up any spilled fuels to prevent further contamination of the nearby environment. The proposed project, once occupied and used as residences, would not be involved in the transport, use, storage, and disposal of hazardous materials other than common commercial products used in a household setting for routine landscaping, maintenance, and cleaning. As a result, no impacts would occur.

B. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ● No Impact.

Due to the nature of the proposed project, the proposed residential project, once occupied, would not be involved in the transport, use, storage, and disposal of hazardous materials other than common commercial products used in a household setting for routine landscaping, maintenance, and cleaning. During construction activities, requirements must be adhered to regarding the transport and handling of fuels and lubricants for the construction equipment used on-site. In the event of a fuel spill, measures must be taken to quickly clean up any spilled fuels to prevent further contamination of the nearby environment. The proposed project site is not located on the California Department of Toxic Substances Control's (DTSC's) Hazardous Waste and Substances Site List - Site Cleanup (Cortese List).[53] In addition, the proposed project site is not identified on any Leaking Underground Storage Tank database (LUST).[54] A search through the California Department of Toxic Substances Control's Envirostor database indicated that the proposed project site was not included on any federal or State clean up or Superfund lists.[55] Therefore, no impacts would occur.

C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ● No Impact.

No schools are located within one-quarter mile of the proposed project. The nearest schools include Etiwanda Colony Elementary School, located 0.26 miles north of the proposed project site; Summit Intermediate School, located 0.29 miles northeast of the proposed project site.[56] As previously mentioned, the proposed project would be involved in residential uses and would not involve the emission or handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, the proposed project would not create a hazard to any local school and no impacts would occur.

D. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ● No Impact.

The *Cortese List*, also referred to as the Hazardous Waste and Substances Sites List or the California

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[53] *https://calepa.ca.gov/sitecleanup/corteselist/*

[54] *California State Water Resources Control Board. GeoTracker. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=lahabra,ca.*

[55] *CalEPA. Envirostor. http://www.envirostor.dtsc.ca.gov/public/map/?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=Los Angeles.*

[56] *Google Earth. Website accessed August 30, 2019.*

Superfund List, is a planning document used by the State and other local agencies to comply with CEQA requirements that require the provision of information regarding the location of hazardous materials release sites. California Government Code section 65962.5 requires the California Environmental Protection Agency to develop and update the Cortese List on annually basis. The list is maintained as part of the DTSC's Brownfields and Environmental Restoration Program referred to as EnviroStor. A search of the California Department of Toxic Substances Control Envirostor website was conducted and it was determined that the proposed project site is not identified as a Cortese site and that no Cortese sites are located within the City.[57] Therefore, no impacts would occur.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ● No Impact.

The proposed project site is not located within two miles of a public airport or a public use airport. The nearest public airport to the proposed project site is the Ontario International Airport, which is located 6.45 miles southwest of the proposed project site.[58] The proposed project is not located within the Runway Protection Zones (RPZ) of the Ontario International Airport nor is the site located within the airport's 60 Community Noise Equivalent Level (CNEL) boundary. The proposed project would not introduce any new structures that could penetrate the designated slopes for any of the aforementioned airports. Essentially, the proposed project would not introduce a building or structure that would interfere with the approach and take-off of airplanes utilizing the Ontario International Airport and would not risk the safety of the people residing or working in the proposed project site or the surrounding area. As a result, the proposed project would not present a safety or noise hazard related to aircraft or airport operations at a public use airport to people residing or working in the proposed project area and no impacts would occur.

F. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ● No Impact.

The proposed project site is located at the end of a cul-de-sac. All construction staging areas would be located within the proposed project site and at no time would any of the surrounding streets be completely closed to traffic. As a result, the proposed project would not impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan and no impacts would result from the proposed project's implementation.

G. *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? ● Less than Significant Impact.*

The area surrounding the proposed project site is urban and there are no areas containing natural vegetation that could lead to a wildfire.[59] However, Rancho Cucamonga is located 2.50 miles south of the base of the

[57] *https://calepa.ca.gov/sitecleanup/corteselist/*

[58] Toll-Free Airline. *Los Angeles County Public and Private Airports, California.* http://www.tollfreeairline.com/california/losangeles.htm.

[59] Blodgett Baylosis Environmental Planning. *Site Survey*. Survey was conducted on December 19, 2018.

San Gabriel Mountains. This proximity creates the potential for natural hazards. Rancho Cucamonga's location adjacent to the San Bernardino National Forest and San Gabriel Mountains puts it at high risk for Wildland Urban Interface (WUI) fires. This type of fire begins in the chaparral north of the City and can spread to structures in those areas and on the perimeter of the City. Open spaces along the foothills can lead to wildland fires, endangering residential properties that abut the wildland/urban interface.

The threat of fire to hillside developments at the base of the San Gabriel Mountains is of real concern to Rancho Cucamonga residents living in the foothills. In 2003, the Grand Prix Fire burned through the entire Wildland Urban Interface (WUI) area of Rancho Cucamonga over a three-day period. Fifteen homes, three of which were in the City and twelve in the Sphere of Influence, were destroyed and more were damaged. Thousands of homes were threatened and evacuated. Exhibit 3-11 within Section 3.20 (Wildfire) illustrates the fire hazard severity zones identified by the California Department of Forestry and Fire Prevention (CAL Fire). As part of a comprehensive plan to protect Rancho Cucamonga from the threats of wildland fires, the Rancho Cucamonga Fire Protection District (RCFPD) has established recommendations for fire prevention, public education, strategic locations of new fire stations, reduction and modification of vegetation, assurance of adequate water supply, and strict access provisions related to new development. The proposed project site is located on the edge of a very high fire hazard severity zone. However, the City of Rancho Cucamonga General Plan outlines various policies for wildfire abatement. These policies include:

- *Policy LU-8.9: Restrict intensive uses and activities in areas where they would be threatened by natural or man-made hazards.* Certain portions of the City are vulnerable to flooding and wildfire damage. Though other hazards exist, these two are the most prevalent. The City wants to make sure that intensities of development in areas vulnerable to these hazards are kept to a minimum and, in the limited cases where they do occur, that life and property are protected to the maximum degree feasible.

- *Policy LU-10.2: Encourage the planting of edible landscapes, using citrus trees, box gardens, vineyards, and other edible plant materials whenever possible.* Edible landscaping is the process of planting edible plants in spaces other than in a traditional garden. Edible landscapes save space as they combine landscaping and food-growing into a single space. It is a very sustainable method of landscaping that refers back to Rancho Cucamonga's beginnings as an agrarian community. Converting power line utility corridors to this use can promote and preserve the heritage of Rancho Cucamonga while significantly reducing the fire hazards presented by these uninterrupted rights of way. Utility corridors and the invasive grasses that they support have a high potential for transporting hillside wildfires into the residential and urban areas of the City.

- *Policy LU-10.3: Promote low water usage, and emphasize fire-safe defensible space.* With water a limited resource and wild fires a constant threat, the use of drought tolerant or fire resistant plant material is required.

- *Policy RC-3.2: Encourage the conversion of water-intensive turf/landscape areas to landscaping that uses climate-appropriate plants, efficient irrigation systems, and water efficient site maintenance.* To conserve water resources and control maintenance costs, the City's current Water Efficiency Ordinance discourages extensive use of non-native vegetation that requires excessive

watering. In particular, the Water Efficiency Ordinance specifies the use of drought tolerant and fire-resistant vegetation with an emphasis on native species. The City updates its Water Efficiency Ordinance based on the State Department of Water Resources model ordinance, which allows for artificial turf.

- *Policy RC-8.6: Consult with the Fire District, San Bernardino County, and State agencies to develop plans that protect open space from fire hazards.* Over the years, the City has learned a great deal on how landscape design can minimize the risk from fire hazards. The Fire District has been proactive in defining standards and implementing those standards throughout the City.

- *Policy PS-1.1: Reduce the loss of life, property, and injuries incurred as a result of fires by offering and supporting comprehensive fire prevention, public education, and emergency response programs.* Fire hazards pose a threat to Rancho Cucamonga residents, especially in areas near the Wildland Urban Interface (WUI). Fire prevention is effective when it includes public education and appropriate land use restrictions, as well as adequate facilities and personnel to mitigate fires when they occur. The Fire District is expected to continually develop effective prevention and response strategies to address this constant risk.

- *Policy PS-1.2: Strive to limit loss of life and property as a result of wildland fires through adequate wildland fire protection services, education and enforcement of defensible space and brush clearance requirements, and wildland fire evacuation and preparedness plans*. The dry vegetation north of the City is conducive to quick moving and high-heat fires that can spread rapidly and cause damage to structures and homes. The Fire District shall routinely assess the current threat to life and property in the WUI. Needs for improvements in response capability would be identified. The City should also expand the existing education and warning system that can be activated following significant wildland fires on the hillsides above the City. Education efforts can include mailers to households in the affected areas, public meetings, and/or door-to-door education campaigns that inform the public of wildland fire safety tips and procedures.

The proposed project would involve the construction of five single-family homes within a project site that is surrounded by existing single-family homes. Compliance with the abovementioned policies will ensure that the impacts would remain less than significant.

3.9.3 MITIGATION MEASURES

The analysis of potential impacts related to hazards and hazardous materials indicated that the proposed project would not result in any adverse impacts. As a result, no mitigation measures are required.

3.10 HYDROLOGY & WATER QUALITY

3.10.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse environmental impact on hydrology and water quality if it results in any of the following:

- A violation of any water quality standards or waste discharge requirements or an otherwise substantial degradation of surface or groundwater quality;

- A substantial decrease of groundwater supplies or a substantial interference with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- A substantial alteration of 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 in which would result in flooding on- or off-site; 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;

- The risk of release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones; or,

- A conflict with or an obstruction of implementation of a water quality control plan or sustainable groundwater management plan.

3.10.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? ● Less than Significant Impact.

In urban settings, stormwater runoff is typically conveyed into a storm drain system and ultimately discharged to the receiving waters at a specific location. Hence, these storm drain system discharges are treated as point sources. Stormwater runoff is part of the natural hydrologic cycle. Drainage patterns and pollutant concentrations are frequently altered through processes such as urbanization and agriculture. Recent studies have indicated that stormwater runoff is a significant source of water pollution. Stormwater runoff encompasses urban runoff, which includes the discharge of pollutants to water bodies from non-storm related activities such as irrigation, hosing sidewalks, draining swimming pools, washing cars and illegal discharges to the storm drain system, such as unauthorized connections, leaks, or spills. Construction activities may also result in the discharge of stormwater runoff pollutants.

The proposed project site is currently vacant and covered over in dirt. However, the proposed project site is located among residential uses and is located in an area that has previously been modified and graded to

accommodate the surrounding residential uses. The proposed project would involve the construction of five single-family homes. Upon the proposed project's completion, a large portion of the proposed project site would be covered over in pervious surfaces (grass and landscaping). A total of 89.780 square feet of the site would consist of landscaping following development.

The proposed project would be required to implement storm water pollution control measures pursuant to the National Pollutant Discharge Elimination System (NPDES) requirements. In addition, the proposed project will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) that will indicate the beast management practices that must be followed during grading and development in the event of a chemical and/or fuel spill. The Clean Water Act (CWA) delineates a national permitting system for point discharges known as the National Pollutant Discharge Elimination System (NPDES). NPDES permits typically incorporate specific discharge limitations for point source discharges to ensure that dischargers meet permit conditions and protect State-defined water quality standards. The NPDES framework also regulates stormwater runoff originating from municipal and industrial sources. As part of the permitting process, the paving contractors would be required to adhere to all pertinent Clean Water Act regulations.

Prior to the issuance of any grading or building permit, the proposed project must submit and have approved a water quality management plan (WQMP) to the city engineer on a form provided by the City. The WQMP shall identify all best management practices (BMPs) that would be incorporated into the proposed project to control stormwater and non-stormwater pollutants during and after construction and shall be revised as necessary during the life of the proposed project. A copy of the preliminary WQMP has been prepared and in included in the Appendix.

The proposed project would not include the installation or operation of any water wells or any groundwater extraction or recharge systems. The proposed project would not include surface or subsurface application or introduction of potential contaminants or waste materials during construction or operation such as septic systems, underground or aboveground storage tanks, percolation ponds, landfills and agricultural activities. The proposed project would not involve or allow an activity or process that would result in a point source discharge to a body of water. Finally, the proposed project would not create conditions which may result in soil erosion, sediment runoff or nonpoint sources of contamination. The proposed project would be required to implement certain best management practices (BMPs) as a means to control storm water runoff and to maintain water quality. These BMPs would comply with both the pertinent NPDES requirements and BMPs in the required WQMP for both construction and once the units are occupied. These BMPs may include, but not be limited to, maintenance of the site, sweeping of streets, preventing sheet flow during heavy rainfall, promptly cleaning fuel spills, and maintaining drainage grates. In addition, Section 19.20.210 of the Rancho Cucamonga Municipal Code states the following:

> "All businesses, regardless of permit status, shall implement all applicable BMPs, as listed in the California Storm Water Best Management Practice Handbooks or the current county municipal stormwater management program, to reduce pollutants in stormwater runoff and reduce non-stormwater discharges to the MS4 to the maximum extent practicable. All structural controls and BMPs shall also be maintained to effectively prevent pollutants from contacting stormwater or remove pollutants from stormwater runoff to the maximum extent practicable. Maintenance records for

structural BMPs and treatment devices, including waste hauling receipts, shall be kept for a period of five years and made available to the city's inspector upon request."

Adherence to the aforementioned BMP requirements would be effective e in reducing the potential impacts to levels that are less than significant.

B. Would the project substantially decrease groundwater supplies or. interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? ● Less than Significant Impact.

The majority of Cucamonga Valley Water District's (CVWD) water comes from imported water. Imported water can range approximately 35-65 percent of the District's water. Sufficient connection capacity exists to meet current and future imported water demands. The District produces groundwater from the two groundwater basins that underlie the District service area: Chino Basin and Cucamonga Basin. In addition to imported water and groundwater, the District has rights to six sources of surface water from the canyons: Cucamonga Canyon, Day/East Canyon, Deer Canyon, Lytle Creek, Smith Canyon Group, and the Golf Course Tunnel. Currently, water is only utilized from three of the six sources: Cucamonga Canyon, Day/East Canyon, and Deer Canyon. As of 2006, CVWD maintained 23 groundwater wells, of which 13 were in service with a maximum production capacity of 20,490 gallons per minute (or an annual production equivalent of 33,076 acre-feet). A search was conducted through the Regional Water Quality Control Board's on-line database Geotracker to identify the presence of any natural underground water wells within the proposed project site. The search yielded no results.[60] In addition, the proposed project will be connected to the City's water lines and will not deplete groundwater supplies or result in a direct decrease in the groundwater supplies. The proposed project will involve the installation of a new 8-inch water line in the new cul-de-sac road that will connect to an existing water located in Arapaho Road. The proposed project does not include the installation of production water wells or a permanent groundwater extraction or dewatering system in a groundwater basin used for potable water supply purposes. The proposed project does not include planned groundwater recharge through surface spreading or injection. The proposed project would not reduce permeable areas overlying a spreading ground used for groundwater recharge.

As previously mentioned, the City of Rancho Cucamonga overlies two groundwater basins (Chino and Cucamonga Basins) as identified in the Rancho Cucamonga General Plan. Local groundwater provides approximately 35 percent of the total water supply of the City of Rancho Cucamonga. Each groundwater basin is replenished by natural precipitation and through a number of spreading grounds and percolation basins. The proposed project site is currently vacant and covered over in dirt. Upon project completion, the proposed project site would be partially covered over in impervious surfaces (pavement and building surfaces). Although the proposed project would decrease the land area over which water could percolate and recharge groundwater, a great majority of the groundwater recharge occurs through spreading grounds, which includes the Cucamonga Spreading Grounds, Day Creek Spreading Grounds, Etiwanda Spreading Grounds, and the San Sevaine Spreading Grounds. The Etiwanda Creek Spreading Grounds is located approximately ½ mile to the northeast of the site and its nearest point.

[60] Geotracker GAMA. http://geotracker.waterboards.ca.gov/gama/gamamap/public/default.asp. Website accessed January 9, 2019.

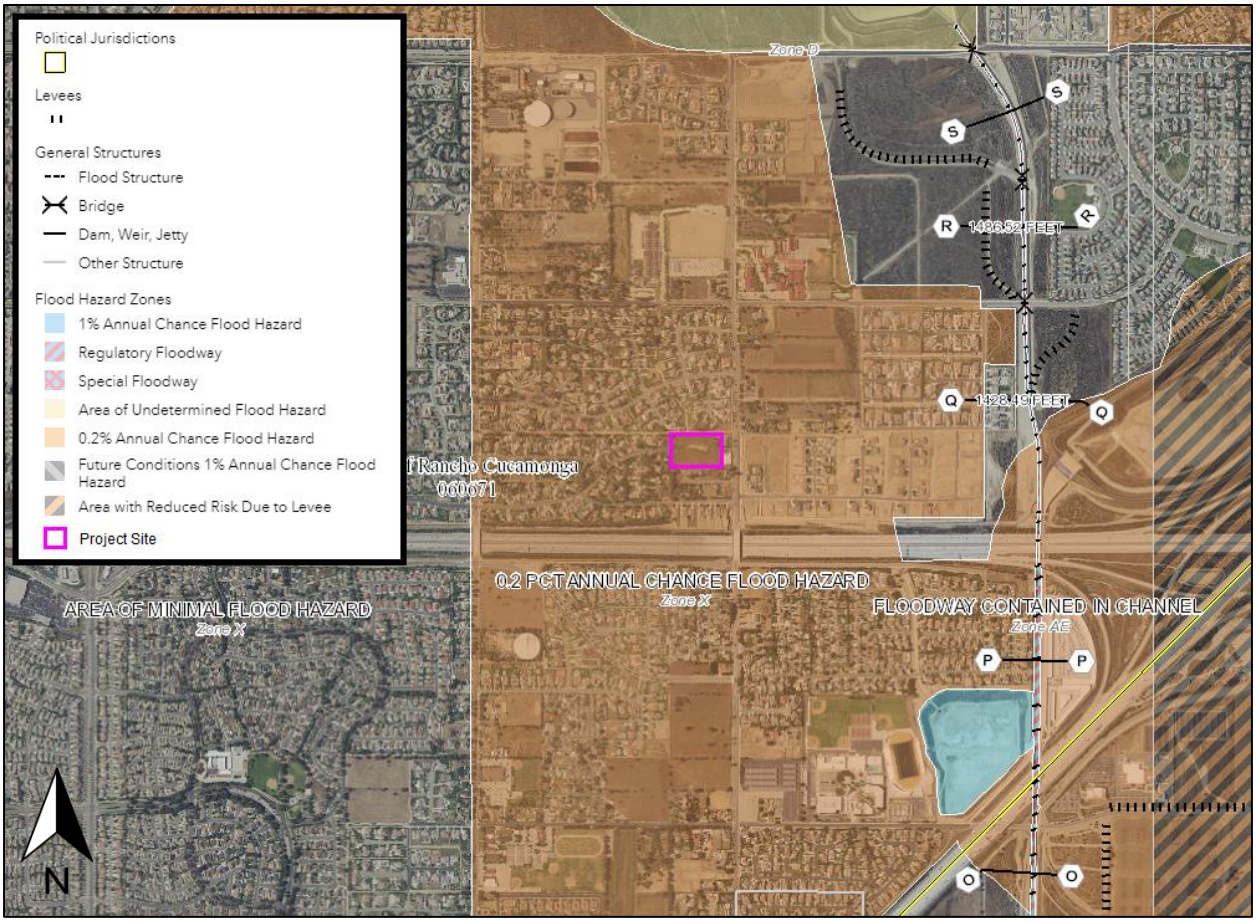

EXHIBIT 3-6
FLOOD HAZARDS MAP
SOURCE: FEMA'S NATIONAL FLOOD HAZARD LAYER (NFHL) VIEWER

Furthermore, the proposed five single-family units would connect directly to an existing water line in Arapaho Road. No groundwater well would be required to directly serve the proposed project and no direct groundwater withdrawals would occur. As a result, the impacts would be less than significant.

C. *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; substantially increase the rate or amount of surface runoff in a manner in which would result in flooding on- or off-site; 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? ● Less than Significant Impact.*

The proposed project involves the construction of five single-family homes on a site that is currently vacant. Upon project completion, a portion of the proposed project site would be covered over in pervious surfaces (grass, landscaping and the bio retention system). Impervious surfaces would include paved areas such as driveways and building surfaces. Upon project completion, the proposed project site would be properly drained and would not result in erosion or siltation on- or off-site. The proposed project would be restricted to the proposed project site and would not alter the course of any local waterways according to the preliminary WQMP and the Hydrology study. The proposed project would be required to implement storm water pollution control measures pursuant to the National Pollutant Discharge Elimination System (NPDES) requirements. The Applicant would also be required to implement the preliminary Water Quality Management Plan (WQMP). The WQMP identifies the Best Management Practices that will be adhered to as a means to control or reduce the discharge of pollutants to the maximum extent practicable. The WQMP also indicates post-construction best management practices (BMPs) that would be the responsibility of the Applicant to implement over the life of the proposed project. With adherence to the WQMP, the impacts would be less than significant.

D. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? ● No Impact.*

According to the Federal Emergency Management Agency (FEMA) map provided in Exhibit 3-6, the proposed project site is not located within a designated 500-year flood hazard area, as defined by FEMA. According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, the proposed project site is located in Zone X (0.2%) (refer to Exhibit 3-6).[61] Zones designated as X (0.2% or a 500-year flood zone) are not considered zones with a significant flood risk. According to the United States Geological Survey (USGS) Earthquake Hazards Program, seiches are standing waves set up on rivers, reservoirs, ponds, and lakes when seismic waves from an earthquake pass through the area.[62] A seiche in the local waterways is not likely to affect the proposed project due to the proposed project site's distance from the local waterways. The nearest local waterway is Etiwanda Creek located approximately 4,400 feet

[61] Federal Emergency Management Agency. *FEMA's National Flood Hazard Layer (NFHL) Viewer*. Website accessed September 19, 2019.

[62] United States Geological Survey Earthquake Hazards Program. *Seismic Seiches*. https://earthquake.usgs.gov/learn/topics/seiche.php.

to the northeast of the site. Furthermore, the proposed project site is not located in an area that is subject to inundation from a tsunami because the proposed project site is located 43 miles inland from the Pacific Ocean.[63] As a result, no impacts would result.

E. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ● No Impact.

As previously mentioned, the proposed project would be required to implement storm water pollution control measures pursuant to the National Pollutant Discharge Elimination System (NPDES) requirements. The Clean Water Act (CWA) delineates a national permitting system for point discharges known as the National Pollutant Discharge Elimination System (NPDES). NPDES permits typically incorporate specific discharge limitations for point source discharges to ensure that dischargers meet permit conditions and protect State-defined water quality standards. The NPDES framework also regulates stormwater runoff originating from municipal and industrial sources. As part of the permitting process, the paving contractors would be required to adhere to all pertinent Clean Water Act regulations.

The Applicant would also be required to implement the preliminary Water Quality Management Plan (WQMP). The WQMP identifies the Best Management Practices that will be adhered to as a means to control or reduce the discharge of pollutants to the maximum extent practicable. The WQMP also indicates post-construction best management practices (BMPs) that would be the responsibility of the Applicant to implement over the life of the proposed project. As indicated previously, domestic water supply is the responsibility of the CVWD. Local supplies are derived from a number of sources including imported surface water from Northern California, groundwater pumped from local aquifers, and a combination of waters collected from the local mountains. Before, during, and after treatment, CVWD collects and analyzes water samples every four hours on a daily basis. In addition to routine testing performed at the treatment plants, water throughout the distribution system is analyzed weekly for disinfectant residuals and bacteriological content. Thousands of other tests are conducted throughout the year to ensure that the local water meets all federal and state regulations.

Because the proposed project site would not require any general plan amendment, the low-density residential use was considers in the formulation of development policy considered in the CVWD's 2016 UWMP. Compliance with the above-mentioned regulations ensures and the proposed project's conformity with the UWMP, would ensure that there are no impacts with respect to this issue.

3.10.3 MITIGATION MEASURES

The analysis indicated that the proposed project would not result in any hydrological, stormwater runoff, or water quality impacts. As a result, no mitigation is required.

[63] Google Earth. Website accessed September 19, 2019.

3.11 LAND USE & PLANNING

3.11.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant impact on land use and planning if it results in any of the following:

- The physical division of an established community; or,
- 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.

3.11.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project physically divide an established community? ● No Impact.

The proposed project site is located among residential uses and although it is currently vacant, the surrounding area has previously been modified and graded to accommodate the surrounding residential uses. The proposed project site is currently zoned as VL *(Very Low Residential)* (refer to Exhibit 3-7). The General Plan Land Use Plan Map indicates that the proposed project site has a land use designation of *Residential – Very Low* (refer to Exhibit 3-8). The proposed project would not require a zone change or general plan amendment, as the proposed use is permitted within the proposed project site. The proposed project site is immediately surrounded on all four sides by properties that are zoned *VL (Very Low Residential)* and developed with single-family residential uses. Upon the proposed project's completion, the proposed project site would also feature residential uses. Therefore, the proposed project would not lead to any division of an existing established neighborhood and no impacts would occur.

B. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? ● No Impact.

As previously mentioned, the proposed project site is currently zoned as VL *(Very Low Residential)* (refer to Exhibit 3-7). The General Plan Land Use Plan Map indicates that the proposed project site has a land use designation of *Residential – Very Low* (refer to Exhibit 3-8). The proposed project would involve the construction of five single-family homes. The proposed project would not require a zone change or general plan amendment, as the proposed use is permitted within the proposed project site. The proposed project site is immediately surrounded on all four sides by properties that are zoned *VL (Very Low Residential)* and developed with single-family residential uses. Upon project completion, the proposed project site would also feature residential uses. Therefore, the proposed project would be in compliance with the City's zoning code and General Plan. The proposed residential development would be required conform to all applicable land use plans, policies and regulations, including the City's zoning code and General Plan. As a result, no impacts would result from the proposed project's implementation.

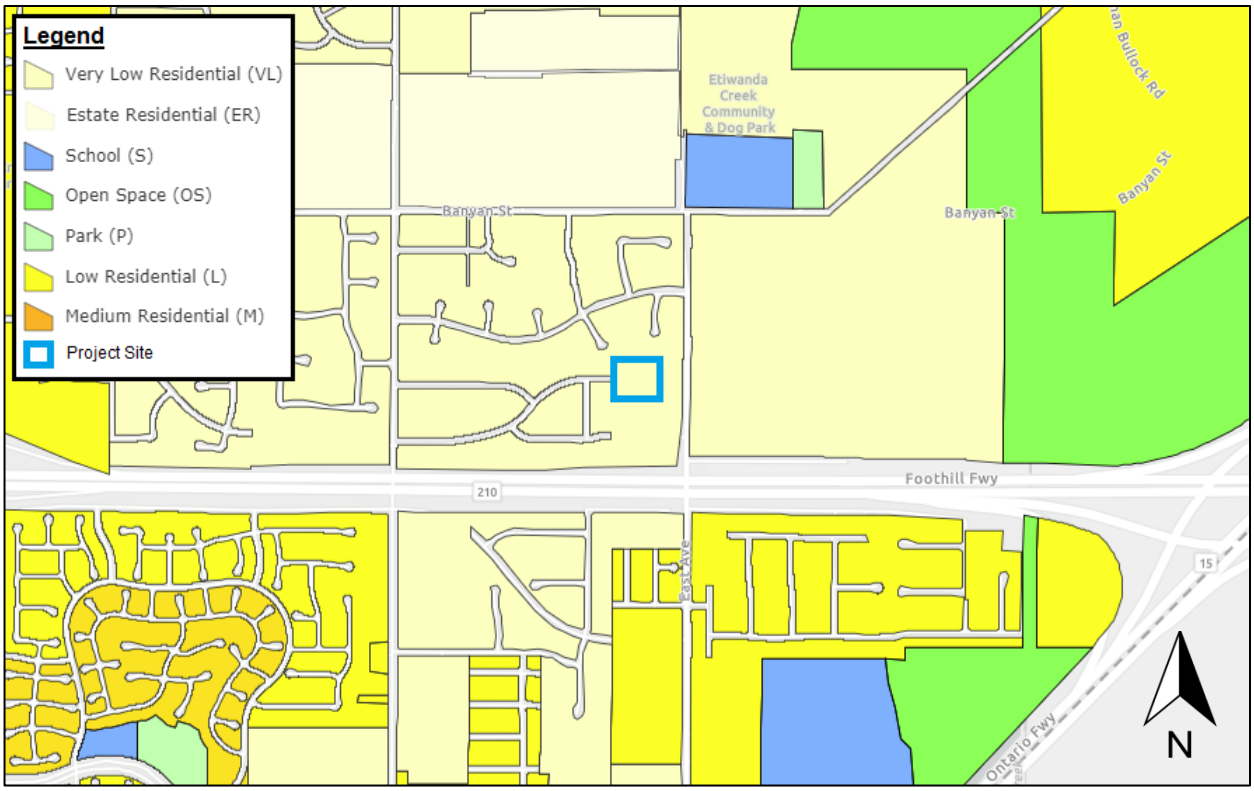

EXHIBIT 3-7
ZONING MAP
SOURCE: CITY OF RANCHO CUCAMONGA

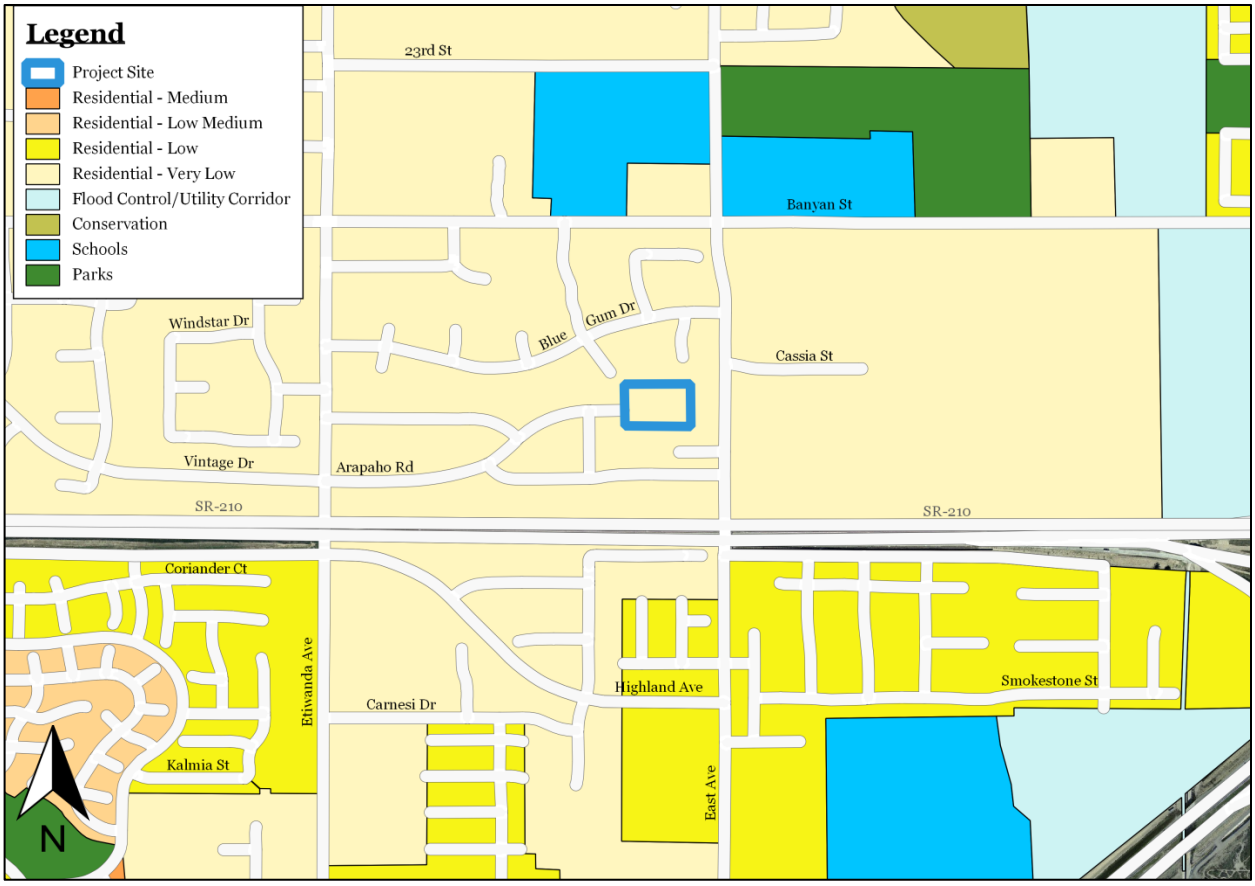

EXHIBIT 3-8
GENERAL PLAN MAP
SOURCE: CITY OF RANCHO CUCAMONGA

3.11.3 MITIGATION MEASURES

The analysis determined that no significant impacts on land use and planning would result from the implementation of the proposed project. As a result, no mitigation measures would be required.

3.12 MINERAL RESOURCES

3.12.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on mineral resources if it results in any of the following:

- The loss of availability of a known mineral resource that would be of value to the region and the residents of the State; or,

- 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.

3.12.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? ● No Impact.

The Surface Mining and Reclamation Act of 1975 (SMARA) mandates the classification of valuable lands that are subject to urban expansion or other irreversible actions in order to protect mineral resources in the State. SMARA also allows the State to designate lands containing mineral deposits of regional or statewide significance. The California Geological Survey (CGS) has identified a number of areas as significant aggregate resources throughout the City and Sphere of Influence. There are four coalescing alluvial fans in or near the City, comprising a significant local sand and gravel resource. From west to east these alluvial fans are known as the San Antonio, Cucamonga, Deer Creek, and Day Creek fans. The Sphere of Influence currently contains a rock crushing plant located within the Day Creek area, which is the only active aggregate operation in the City/Sphere of Influence. According to the Regionally Significant Aggregate Resources map within the General Plan, the proposed project site is not located in an area with active mineral extraction activities.

According to the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) Well Finder, there are no existing or former oil wells and/or oil extraction activities located within the proposed project site.[64] The nearest recorded wells to the proposed project site are located over 2.50 miles away from the proposed project site and are inactive wells that are either idle or plugged. As a result, no impacts on existing mineral resources would result from the proposed project's implementation.

[64] California Department of Conservation. *Division of Oil, Gas & Geothermal Resources Well Finder*. http://maps.conservation.ca.gov/doggr/index.html#close. Website accessed January 18, 2019.

B. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ● No Impact.

As previously mentioned, no mineral, oil, or energy extraction and/or generation activities are located within the proposed project site. As a result, the proposed project would not interfere with any resource extraction activity. Therefore, no impacts would result from the implementation of the proposed project.

3.12.3 MITIGATION MEASURES

The analysis indicated that no impacts to mineral resources would result from the proposed project's approval and subsequent implementation. As a result, no mitigation measures are required.

3.13 NOISE

3.13.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant impact on the environment if it results in any of the following:

- The generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- The generation of excessive groundborne vibration or groundborne noise levels; or,
- The exposure of people residing or working in the proposed project area to excessive 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.

3.13.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project 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? ● Less than Significant Impact with Mitigation.

Noise levels may be described using a number of methods designed to evaluate the "loudness" of a particular noise. The most commonly used unit for measuring the level of sound is the decibel (dB). Zero on the decibel scale represents the lowest limit of sound that can be heard by humans. The eardrum may rupture at 140 dB.[65] Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can

[65] USEPA, Protective Noise Levels. 1971.

disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA). Noise levels that are associated with common, everyday activities are illustrated in Exhibit 3-9.

As previously mentioned, residential uses are located on all sides of the proposed project; therefore, noise-sensitive uses are located on all sides of the proposed project site. The nearest homes abut the project site approximately 55 feet from the west property line. These nearby sensitive receptors are shown in Exhibit 3-2 within the Air Quality section (Section 3.3).

During construction, the proposed project may result in a substantial temporary increase in ambient noise levels in the absence of mitigation. Noise levels associated with various types of construction equipment are illustrated in Exhibit 3-10. The noise levels that are indicated in the exhibit illustrate the typical noise levels at a distance of 50 feet from the noise source. Composite construction noise is best characterized by Bolt, Beranek, and Newman.[66] In this study, the noisiest phases of construction is presented as 89 dBA as measured at a distance of 50 feet from the construction effort. Noise from stationary or point sources is reduced by about 6 dBA for every doubling of distance. In addition, noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.

The ambient noise environment in the vicinity of the proposed project is dominated by noise emanating from vehicles traveling on the nearby roadways and noise typically associated with the adjacent uses, which are residential uses. The proposed project would involve the construction of five single-family homes. Future sources of noise generated on-site would include noise typically associated with residential uses.

Construction of the proposed project would require the use of equipment for site clearing, grading, the installation of utilities, and building construction. During each construction phase, there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity. The U.S. Environmental Protection Agency (EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. It is important to note that construction noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, glass windows are capable of reducing noise by about 25 dBA.

[66] Bugliarello, et. al. *The Impact of Noise Pollution,* 1975.

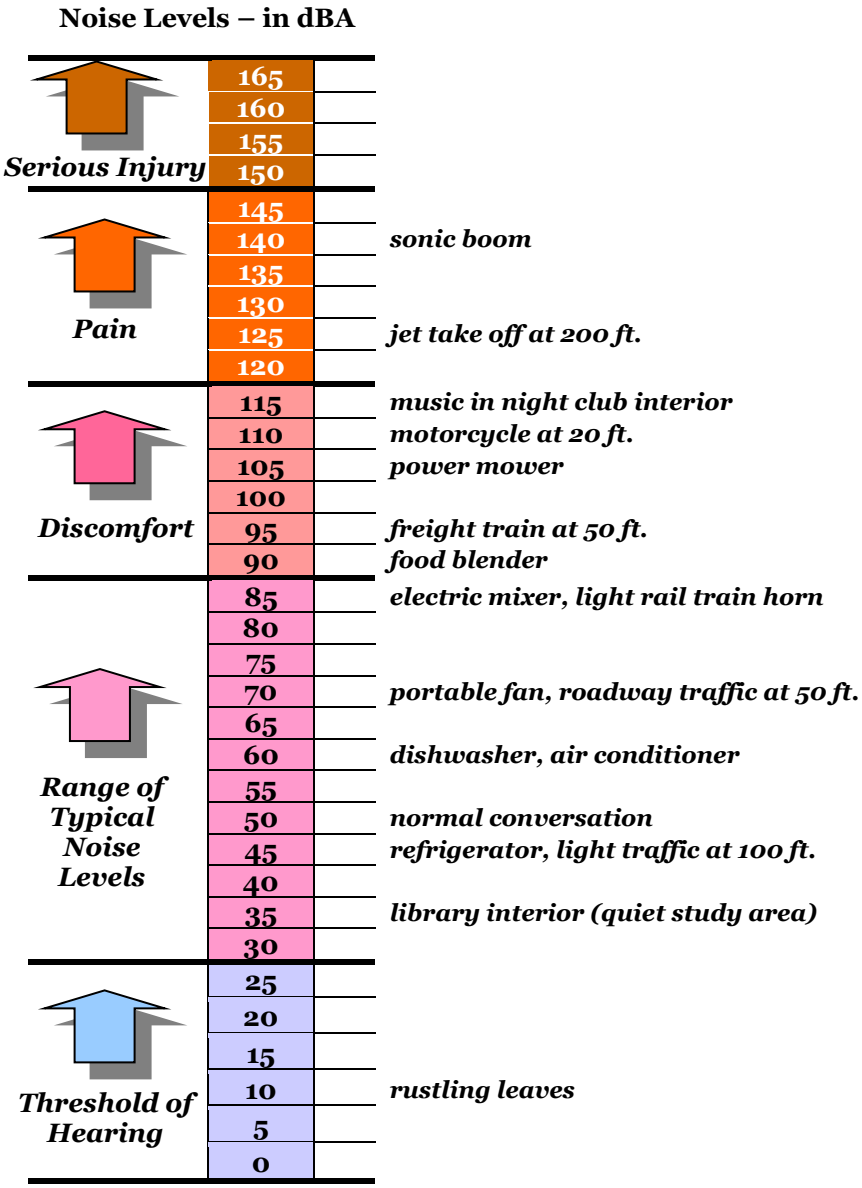

EXHIBIT 3-9
TYPICAL NOISE SOURCES AND LOUDNESS SCALE
Source: Blodgett Baylosis Environmental Planning

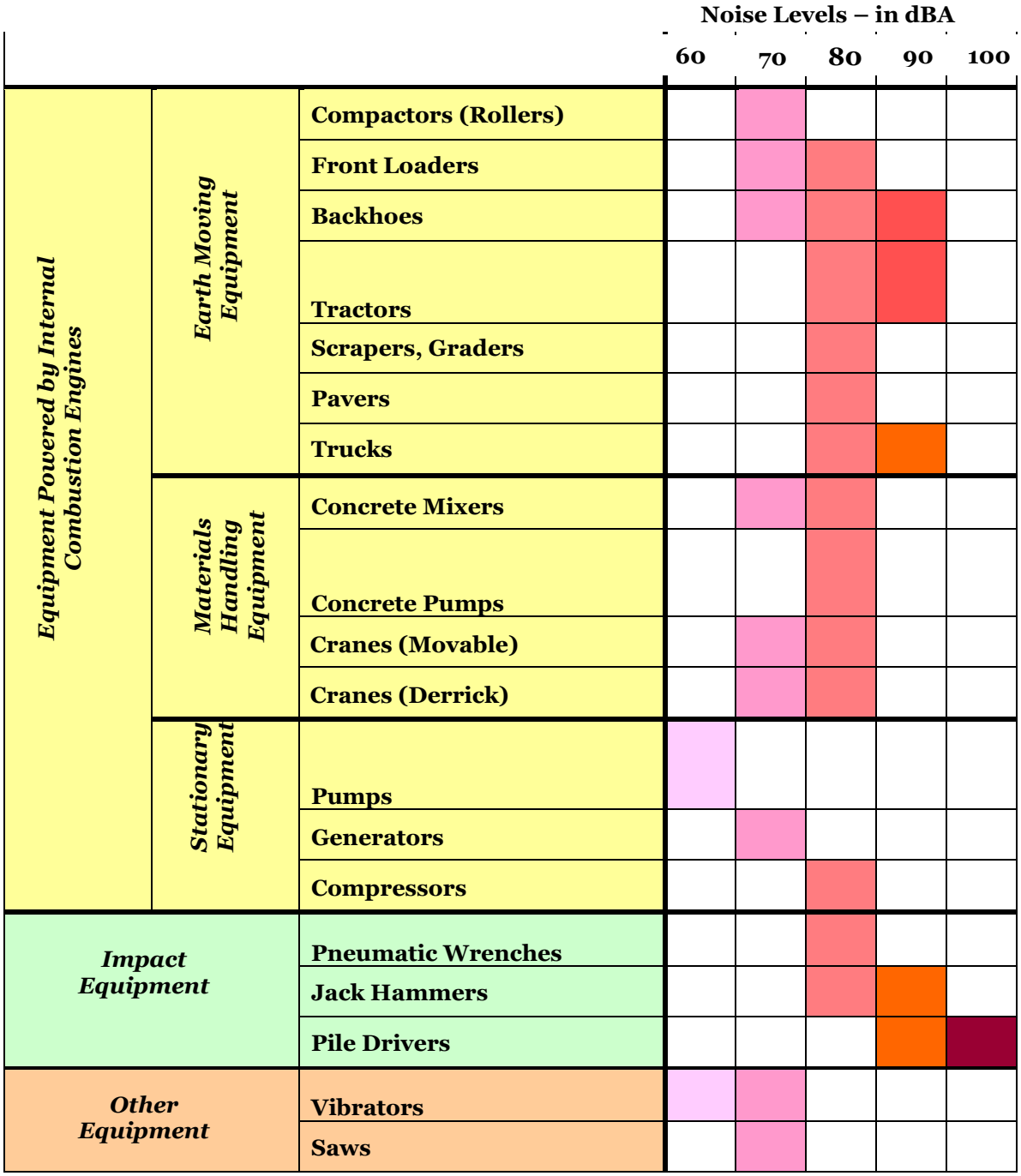

EXHIBIT 3-10
TYPICAL CONSTRUCTION NOISE LEVELS
Source: Blodgett Baylosis Environmental Planning

The proposed project's construction noise levels would occur on a temporary and intermittent basis during the construction period. Pursuant to the City's Municipal Code, construction activities within a residential area are prohibited between the hours of 8:00 PM and 7:00 AM Monday through Saturday. Construction noise is prohibited on Sundays and national holidays. The proposed project's construction would comply with these requirements. The City of Rancho Cucamonga Municipal Code has established the following noise control standards for residential zones:[67]

- *Residential noise standards*.
    - The following table includes the maximum noise limits in residential zones. These are the noise limits when measured at the adjacent residential property line (exterior) or within a neighboring home (interior).

Table 3-6
Residential Noise Limits

Location of Measurement	*Maximum Allowable*	
	10:00 p.m. to 7:00 a.m.	*7:00 a.m. to 10:00 p.m.*
Exterior	60 dBA	65 dBA
Interior	45 dBA	50 dBA

- *Special exclusions*. The following activities shall be exempted from the provisions of this section:
    - Noise sources associated with, or vibration created by, construction, repair, remodeling, or grading of any real property or during authorized seismic surveys, provided said activities:
        - When adjacent to a residential land use, school, church or similar type of use, the noise generating activity does not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a national holiday, and provided noise levels created do not exceed the noise standard of 65 dBA when measured at the adjacent property line.
    - Noise sources associated with the maintenance of real property, provided said activities take place between the hours of 7:00 a.m. and 8:00 p.m. on any day.

In order to ensure that the neighboring residential uses are shielded from construction noise, the following mitigation measures are required:

- Temporary noise barriers must be erected along the site's boundaries. These sound barriers would be designed to attenuate construction noise. We recommend plywood fencing or other sound attenuating materials like sound curtains (sound barriers can mitigate construction noise by 20-25 dBA).

[67] *Rancho Cucamonga, City of. Municipal Code, Title 17 Development Code, Article IV Site Development Provisions, Chapter 17.66 Performance Standards, Section 17.66.050 Noise Standards.*

- Demolition and construction activities shall be scheduled to the extent reasonably feasible so as to avoid operating several pieces of high noise generating equipment simultaneously.

- The project contractors must notify residents in the area regarding construction times and local contact information. This notice must be placed along the east side of the project site and shall include the name and phone number of the local contact person residents may call to complain about noise. Upon receipt of a complaint, the contractor must respond immediately by reducing noise to meet Municipal Code requirements. In addition, all complaints and subsequent communication between the affected residents and contractors must be forwarded to the City's Public Works Department.

- The project contractors shall use construction equipment that includes working mufflers and other sound suppression equipment as a means to reduce machinery noise.

The implementation of the above-mentioned mitigation measures would reduce potential construction noise impacts to levels that are less than significant. The proposed project would increase traffic volumes on the surrounding roadways, which in turn has the potential to increase roadway (traffic-related) noise. It typically requires a *doubling* of traffic volumes to result in an increase in the ambient noise levels of between 3.0 to 5.0 dBA. The 3.0 to 5.0 dBA figures are considered to be the limit where changes in the noise levels may be perceived by persons with normal hearing. According to the traffic analysis prepared for the proposed project, the proposed development would result in approximately 50 net daily vehicle trips, including 5 PM peak hour trips. The generation of 50 additional vehicle trips would not represent a doubling of traffic volumes along Arapaho Road. As a result, the proposed project's traffic noise impact would be less than significant.

B. Would the project result in generation of excessive groundborne vibration or groundborne noise levels? ● Less than Significant Impact.

The nearest land uses that may potentially be impacted by groundborne vibration and noise (primarily from the use of heavy construction equipment) are the residential uses that surround all sides of the proposed project site. Once operational, the proposed project's noise impacts would be similar to those that are already exist among the existing residential uses and would not be significant. As previously mentioned, the noisiest phases of construction are anticipated to be 89 dBA as measured at a distance of 50 feet from the construction activity. As stated within the City's Municipal Code, construction activities within a residential area are prohibited between the hours of 8:00 PM and 7:00 AM Monday through Saturday. Construction noise is prohibited on Sundays and national holidays.[68] Compliance with City noise standards will decrease any potential adverse impacts to nearby sensitive receptors. Four mitigation measures were listed in the previous subsection (3.13.2.A) to ensure that the residential uses are shielded from construction noise.

[68] *Rancho Cucamonga, City of. Municipal Code, Title 17 Development Code, Article IV Site Development Provisions, Chapter 17.66 Performance Standards, Section 17.66.050 Noise Standards.*

Ground vibrations associated with construction activities using modern construction methods and equipment rarely reach the levels that result in damage to nearby buildings though vibration related to construction activities may be discernible in areas located near the construction site. A possible exception is in older buildings where special care must be taken to avoid damage. Table 3-7 summarizes the levels of vibration and the usual effect on people and buildings. The U.S. Department of Transportation (U.S. DOT) has guidelines for vibration levels from construction related to their activities and recommends that the maximum peak-particle-velocity levels remain below 0.05 inches per second at the nearest structures. Vibration levels above 0.5 inches per second have the potential to cause architectural damage to normal dwellings. The U.S. DOT also states that vibration levels above 0.015 inches per second (in/sec) are sometimes perceptible to people, and the level at which vibration becomes an irritation to people is 0.64 inches per second.

Table 3-7
Common Effects of Construction Vibration

Peak Particle Velocity (in/sec)	Effects on Humans	Effects on Buildings
<0.005	Imperceptible	No effect on buildings
0.005 to 0.015	Barely perceptible	No effect on buildings
0.02 to 0.05	Level at which continuous vibrations begin to annoy occupants of nearby buildings	No effect on buildings
0.1 to 0.5	Vibrations considered unacceptable for persons exposed to continuous or long-term vibration.	Minimal potential for damage to weak or sensitive structures
0.5 to 1.0	Vibrations considered bothersome by most people, however tolerable if short-term in length	Threshold at which there is a risk of architectural damage to buildings with plastered ceilings and walls. Some risk to ancient monuments and ruins.
1.0 to 2.0	Vibrations considered unpleasant by most people.	U.S. Bureau of Mines data indicates that blasting vibration in this range will not harm most buildings. Most construction vibration limits are in this range.
>3.0	Vibration is unpleasant	Potential for architectural damage and possible minor structural damage

Source: U.S. Department of Transportation

Typical levels from vibration generally do not have the potential for any structural damage if properly used. Some construction activities, such as pile driving and blasting, can produce vibration levels that may have the potential to damage some vibration sensitive structures if performed within 50 to 100 feet of the structure. Various types of construction equipment have been measured under a wide variety of construction activities with an average of source levels reported in terms of velocity levels as shown in Table 3-8. Although the table gives one level for each piece of equipment, it should be noted that there is a considerable variation in reported ground vibration levels from construction activities. The data in Table 3-10 provides vibration levels for several pieces of construction equipment.

Table 3-8
Vibration Source Levels for Construction Equipment

Construction Equipment		PPV @25 ft. (inches/sec.)	Noise Levels (VdB) @ 25 ft.
Pile Driver (impact)	Upper range	1.58	112
	Typical	0.644	104
Pile Drive (Sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam Shovel Drop		0.202	94
Large Bulldozer**		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks**		0.076	86
Small Bulldozer**		0.035	79

Note: ** Equipment likely to be used in construction
Source: Noise and Vibration During Construction

Based on Transit Noise and Vibration Impact Assessment (FTA, May 2006), a vibration level of 102 VdB (velocity in decibels 0.5 inches per second [iii/sec]) or higher (FTA, May 2006) is considered safe and would not result in any construction vibration damage. At a distance of 60 feet, the on-site pile driving would generate a vibration level of up to 0.25 in/sec. However, no pile driving equipment will be used during the proposed project's construction. Therefore, the proposed project would not generate significant vibration impacts. The proposed project would result in a temporary increase in ambient noise and vibration levels during the project's construction phase. The vibrations would range from 79 to 94 VdB at 25 feet from the activity location. As indicated previously, the noise/vibration will decrease with distance and at no time will the noise levels be over 110 VdB that which could cause minor damage. As a result, the potential impact would be less than significant.

C. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ● No Impact.*

The proposed project site is not located within two miles of a public airport or a public use airport. The nearest public airport to the project site is the Ontario International Airport, which is located 6.45 miles southwest of the project site.[69] The project site is located outside of a ALCUP noise contour from Ontario Airport. As a result, the proposed project would not expose people residing or working in the project area to excessive noise levels and no impacts would occur.

3.13.3 MITIGATION MEASURES

The analysis of potential impacts related to noise indicated that the residential uses located adjacent to the project site could potentially be impacted by construction noise. To ensure that the residential uses are

[69] Toll-Free Airline. *Los Angeles County Public and Private Airports, California.* http://www.tollfreeairline.com/california/losangeles.htm.

shielded from construction noise, the following mitigation measures are required:

Mitigation Measure No. 9 (Noise). Temporary noise barriers must be erected along the site's boundaries. These sound barriers will be designed to attenuate construction noise. We recommend plywood fencing or other sound attenuating materials like sound curtains (sound barriers can mitigate construction noise by 20-25 dBA).

Mitigation Measure No. 10 (Noise). Demolition and construction activities shall be scheduled to the extent reasonably feasible so as to avoid operating several pieces of high noise generating equipment simultaneously.

Mitigation Measure No. 11 (Noise). The project contractors must notify residents in the area regarding construction times and local contact information. This notice must be placed along the east side of the proposed project site and shall include the name and phone number of the local contact person residents may call to complain about noise. Upon receipt of a complaint, the contractor must respond immediately by reducing noise to meet Municipal Code requirements. In addition, all complaints and subsequent communication between the affected residents and contractors must be forwarded to the City's Public Works Department.

Mitigation Measure No. 12 (Noise). The project contractors shall use construction equipment that includes working mufflers and other sound suppression equipment as a means to reduce machinery noise.

3.14 POPULATION & HOUSING

3.14.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant impact on housing and population if it results in any of the following:

- A substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or,

- The displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.14.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *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 extension of roads or other infrastructure)? ● Less than Significant Impact.*

The proposed project would involve the construction of five single-family homes. Growth-inducing impacts are generally associated with the provision of urban services to an undeveloped or rural area. Growth-inducing impacts include the following:

- *New development in an area presently undeveloped and economic factors which may influence development*. Although the proposed project site is not currently developed, the proposed project site is surrounded on all sides by development.

- *Extension of roadways and other transportation facilities.* The proposed project site is well served by existing public roadways. No new public roadways would need to be constructed to serve the proposed project. The existing Arapaho Road would be extended onto the project site and this roadway will end as a cul-de-sac.

- *Extension of infrastructure and other improvements*. The proposed project site would be served by existing water and power infrastructure though these existing lines will be extended into the site to serve the individual units.

- *Major off-site public projects (treatment plants, etc.).* No new off-site public projects would be required to accommodate the proposed project.

- *The removal of housing requiring replacement housing elsewhere.* No housing units are located within the proposed project site boundaries. As a result, no replacement housing would be required.

- *Additional population growth leading to increased demand for goods and services.* The proposed project is an infill project that would provide an additional five single-family units.

- *Short-term growth-inducing impacts related to the project's construction.* Construction workers and deliveries will not be required to travel long distances to reach the construction site.

According to the Growth Forecast Appendix prepared by SCAG for the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the City of Rancho Cucamonga had a population of 170,100 in 2012 and is projected to have a population of 204,300 by the year 2040.[70] As of July 1, 2018, the population in the City of Rancho Cucamonga was estimated to be 177,751.[71] According to the U.S. Census Bureau, the average household size in the City of Rancho Cucamonga is 3.07 persons per household (2013-2017); therefore, the potential number of new residents that would be introduced by the proposed project would be 15 persons. The proposed number of new residents that the proposed project would introduce will not surpass those projected by SCAG. The project will be consistent with the City's General Plan designation which was used in the formulation of the SCAG growth projections.

[70] Southern California Association of Governments. *Regional Transportation Plan/Sustainable Communities Strategy 2016-2040. Demographics & Growth Forecast.* April 2016.

[71] United States Census Bureau. *Quickfacts, Rancho Cucamonga City, California.* https://www.census.gov/quickfacts/ranchocucamongacitycalifornia.

The site on which the proposed residential development would be constructed is presently vacant and covered over in dirt. The proposed project site is located in a fully urbanized area of Rancho Cucamonga. The proposed project would be classified as an infill project. The California Code, Public Resources Code (PRC) Section 21099 defines an *infill site* as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses." The proposed project site is completely surrounded by urban uses. The proposed project would not be located in an area that is currently undeveloped or unserved by major infrastructure. As a result, less than significant impacts would occur.

B. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ● No Impact.

The proposed project site is located among residential uses and the proposed project area has previously been heavily modified and graded to accommodate the surrounding residential uses. The proposed project site is currently underutilized and covered over in dirt. There are no housing units located within the proposed project site boundaries. Therefore, no residents or housing units would be displaced as a result of the proposed project's implementation and no impacts would occur.

3.14.3 MITIGATION MEASURES

The analysis of potential population and housing impacts indicated that no significant impacts would result from the proposed project. As a result, no mitigation is required.

3.15 PUBLIC SERVICES

3.15.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on public services if it results in any of the following:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *fire protection*;

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *police protection;*

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *schools;*

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *parks*; or,

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *other public facilities*.

3.15.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for* fire protection*? ● Less than Significant Impact*.

The Rancho Cucamonga Fire Protection District (RCFPD) serves the combined 50-square-mile Rancho Cucamonga City and Sphere of Influence area. The RCFPD has trained many of its members and has equipment to deal with different types of emergencies. These include:

- *Wildland Fire Protection:* Firefighters specialize in mitigating fires in the Wildland Urban Interface (WUI) areas.
- *Emergency Medical Services (EMS):* Firefighters trained as Paramedics and Emergency Medical Technicians are responsible for providing rapid response and assessment of life in threatening situations that result from injury or illness.
- *Technical Rescue:* The Technical Rescue team is a specialized team that is trained in confined space rescue, trench rescue, building collapse and shoring, swift water rescue, high angle rope rescue, and large animal rescue.
- *Hazardous Material:* The Hazardous Materials team is a specialized team that is trained and certified to take corrective action to prevent or contain the spread of hazardous materials from spills, explosion, or fire.[72]

[72] Rancho Cucamonga, City of. *General Plan*.

Table 3-9
Rancho Cucamonga Fire Protection District (RCFPD)
Fire Stations

Fire Station	Name	Address	Distance from Project Site
Fire Station 171	Amethyst Fire Station	6627 Amethyst Avenue	4.62 miles to the west
Fire Station 172	San Bernardino Road Fire Station	9612 San Bernardino Road	4.93 miles to the southwest
Fire Station 173	Day Creek Fire Station	12270 Fire House Court	1.50 miles to the southwest
Fire Station 174	Jersey Fire Station	11297 Jersey Avenue	3.80 miles to the southwest
Fire Station 175	Banyan Fire Station	11108 Banyan Street	2.57 miles to the northwest
Fire Station 176	East Avenue Fire Station	5840 East Avenue	0.62 miles to the north
Fire Station 177	Hellman Fire Station	9270 Rancho Street	5.04 miles to the northwest

Source: City of Rancho Cucamonga, Fire District

The nearest fire station to the proposed project site is the East Avenue Station, located 0.62 miles north of the proposed project site. The proposed project involves the construction of five single-family homes. New development projects in the City may increase the demand for fire protection and emergency medical services. The proposed project is not located within a brush fire hazard area, hillside, or area with inadequate fire hydrant service or street access. The proposed project would be residential in nature and would not involve the use, manufacture or storage of toxic, readily combustible, or otherwise hazardous materials. The proposed project's location would provide for adequate RCFPD access. Arapaho Road has a width of approximately 30 feet, which would provide sufficient clearance for the fire trucks. In addition, the proposed project is an infill project and will not result in an expansion of the fire service boundaries.

The proposed project would work with RCFPD and incorporate RCFPD's recommendations relative to fire safety into the building plans. The RCFPD currently reviews all new development plans, and future development would be required to conform to all fire protection and prevention requirements, including emergency access. The proposed project would only place an incremental demand on fire services since the proposed project would involve the operation of five single-family homes. Compliance with the above-mentioned requirement, as well as the pertinent codes and ordinances, would reduce the impacts to levels that are less than significant. Thus, the proposed project would not result in the need for or provision of new or physically altered governmental facilities the construction of which could cause significant adverse environmental impacts, and fire services impacts would be less than significant.

B. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for* police protection*? ● Less than Significant Impact with Mitigation.*

Rancho Cucamonga contracts with the San Bernardino County Sheriff's Department (SBCSD) for police services. The SBCSD operates the Police Department and provides response services, criminal investigation services, traffic enforcement, and preventive patrol with the main police facility located at the City's Civic Center. There is also a sub-station located within the Victoria Gardens Shopping Center and one satellite office located at Vineyard Avenue and Base Line Road. In addition, the proposed project is an infill project and will not result in an expansion of the fire service boundaries.

Table 3-10
San Bernardino County Sheriff's Department (SBCSD)
Police Stations in Rancho Cucamonga

Police Station	Address	Distance from Project Site
Police Department (main facility)	10510 Civic Center Drive (City Hall)	4.08 miles to the southwest
Victoria Gardens Satellite Station	7743 Kew Avenue	1.95 miles to the south
Satellite Office	Vineyard Avenue and Base Line Road	5.50 miles to the west

Source: City of Rancho Cucamonga, Police Department

Construction sites, if left unsecured, have the potential to attract trespassers and/or vandals that would potentially result in graffiti, excess trash, and potentially unsafe conditions for the public. Such occurrences would adversely affect the aesthetic character of the proposed project site and surrounding area and could potentially cause public health and safety concerns. The proposed project would incorporate temporary construction fencing along the periphery of the active construction areas to screen as much of the construction activity from view at the local street level and to keep unauthorized persons from entering the construction area. With implementation of the following mitigation measures, the proposed project's impacts upon SBCSD services would be less than significant:

- Temporary construction fencing shall be placed along the periphery of the active construction areas to screen as much of the construction activity from view at the local street level and to keep unpermitted persons from entering the construction area.

The proposed project would only place an incremental demand on police protection services since the proposed project is not anticipated to be an attractor for crime due to the lack of unsecure vacant space. To ensure the proposed project elements adhere to the City's security requirements, the San Bernardino County Sheriff's Department would review the site plan for the proposed project to ensure that the development adheres to the Department requirements, including, but not limited to, photometric plan review. Adherence to the above-mentioned requirement and mitigation measure would reduce the potential impacts to levels that are less than significant.

C. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools*? ● Less than Significant Impact.*

Four elementary school districts and one high school district serve residents of Rancho Cucamonga. Rancho Cucamonga is located entirely within the Chaffey Joint Union High School District, which provides all secondary public education. The district operates four high schools: Alta Loma on the west, Rancho Cucamonga in the central area, Etiwanda on the east, and Los Osos in the north central portion of the City. Primary-level public education services are provided by four elementary and junior high/middle school districts: Alta Loma serving the northwest portion, Central serving the west central portion, Cucamonga serving the south portion, and Etiwanda serving the eastern portion of the City. The unincorporated Sphere of Influence to the north is served by the Alta Loma and Etiwanda districts. The City also has many religious institutions on large properties that have K-12 schools now and possibly in the future. Chaffey Community

College serves the Rancho Cucamonga community and surrounding region. Chaffey Community College is a full-service community college occupying a 200-acre site along north Haven Avenue. The college offers a wide range of educational programs, including the following schools: Business and Applied Technology; Health Sciences; Language Arts; Mathematics and Science; Social and Behavioral Sciences; and Visual, Performing, and Communication Arts. In addition to Chaffey Community College, Rancho Cucamonga can boast a number of satellite campuses from major institutions of higher learning. Within the City limits these include facilities operated by the University of Redlands and the University of La Verne.

According to the U.S. Census Bureau, the average household size in the City of Rancho Cucamonga is 3.07 persons per household (2013-2017); therefore, the potential number of new residents that would be introduced by the proposed project would be 15 persons. According to U.S. Census Bureau statistics for the City, 17.7% of residents are children of school age; therefore, approximately 3 of the new residents would be of school age. Therefore, the projected number of new students would not increase demand for school services. The proposed project would not require construction of new facilities, a major reorganization of students or classrooms, major revisions to the school calendar (such as year-round sessions), or other actions which would create a temporary or permanent impact on the nearby schools.

The Applicant would be required to pay all applicable developer fees to the local school districts to offset the proposed project's impact on local schools. The Applicant would be required to pay all applicable school facility development fees in accordance with California Government Code Section 65995. Pursuant to Government Code Section 65995, payment of development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." The District will be able to accommodate the project's potential enrollments. With the payment of a School Development Fee, the proposed project's potential impact upon public school services would be less than significant.

D. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for* parks*? ● Less than Significant Impact.*

The proposed project involves the construction of five single-family homes. According to the U.S. Census Bureau, the average household size in the City of Rancho Cucamonga is 3.07 persons per household (2013-2017); therefore, the potential number of new residents that would be introduced by the proposed project would be 15 persons.

The nearest park to the proposed project site is Etiwanda Creek Park, which is located 0.40 miles north of the proposed project site. The proposed project would not require construction of new park facilities or other actions which would create a temporary or permanent impact on the nearby parks. A significant impact would occur if the proposed project would result in the need for or provision of new or physically altered governmental facilities the construction of which could cause significant adverse environmental impacts. The proposed project would be required to comply with any applicable regulations requiring the payment of parks fees or the dedication of parkland. Each residential related project would also be required to pay applicable park fees and comply with the on-site open space requirements of the Rancho Cucamonga

Municipal Code, which would offset demand for public parks. As a result, the impacts would be less than significant.

E. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities*? ● Less than Significant Impact.*

The Rancho Cucamonga Public Library has two library facilities. The Archibald Library was the first municipal library in Rancho Cucamonga, which opened in 1994. The Paul A. Biane Library, located as part of the Victoria Gardens Cultural Center, opened in 2006. The opening of this second facility has nearly doubled the capacity of the Rancho Cucamonga Public Library system. The Rancho Cucamonga Public Library offers programs and services for people of all ages, including a bookmobile, technology classes, story time for children, programs for teens, book clubs, literacy programs, and other special programs. Two libraries outside of the Rancho Cucamonga Public Library system are also located within the City. These libraries include the Chaffey College Library and the Law Library for San Bernardino County.

A significant impact may occur if a project includes substantial employment or population growth that could generate a demand for other public facilities (such as libraries), which would exceed the capacity available to serve the proposed project site and require the construction of additional library facilities that would create direct or indirect environmental impacts.

The proposed project involves the construction of five single-family homes. According to the U.S. Census Bureau, the average household size in the City of Rancho Cucamonga is 3.07 persons per household (2013-2017); therefore, the potential number of new residents that would be introduced by the proposed project would be 15 persons. The new residents would likely use the aforementioned library branches. The proposed project is unlikely to create substantial capacity or service level problems that would require or result in new or expanded public facilities the construction of which would have a significant adverse impact. Thus, impacts would be less than significant.

3.15.3 MITIGATION MEASURES

With implementation of the following mitigation measure, the proposed project's impacts upon LAPD services would be less than significant.

Mitigation Measure No. 13 (Public Services). Temporary construction fencing shall be placed along the periphery of the active construction areas to screen as much of the construction activity from view at the local street level and to keep unpermitted persons from entering the construction area.

3.16 RECREATION

3.16.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on the environment if it results in any of the following:

- An increase in 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,

- The inclusion of recreational facilities or the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.16.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ● Less than Significant Impact.

The proposed project involves the construction of five single-family homes. According to the U.S. Census Bureau, the average household size in the City of Rancho Cucamonga is 3.07 persons per household (2013-2017); therefore, the potential number of new residents that would be introduced by the proposed project would be 15 persons.

A significant impact would occur if the proposed project would result in a substantial physical deterioration of a park facility. The nearest park to the proposed project site is Etiwanda Creek Park, which is located 0.40 miles north of the proposed project site. The proposed project would not require construction of new park facilities or other actions which would create a temporary or permanent impact on the nearby parks.

The proposed project would comply with any applicable regulations requiring the payment of parks fees or the dedication of parkland. Each residential related project in the City is required to pay applicable park fees and to comply with the on-site open space requirements of the Rancho Cucamonga Municipal Code, which would offset demand for public parks. Section 3.68.030 (Establishment and administration of Park In-Lieu/Park Impact Fees) of the City of Rancho Cucamonga Municipal Code provides the justification for collecting park fees from new residential development. The total fees per unit would be $10,474 and would include a subdivision fee ($5,756 per unit), a park improvement fee ($2,805 per unit) and a community and recreation center fee ($1,913 per unit). The five units would be required to pay $52,370. With the payment of these fees, the impacts would be less than significant.

B. 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 Impact.

A significant impact may occur if a project includes or requires the construction or expansion of park facilities and such construction would have a significant adverse effect on the environment. The proposed project itself does not include the expansion of park facilities and does not require the construction or expansion of recreational facilities that might have an adverse impact on the environment. In addition, the proposed project would be required to comply with any applicable regulations requiring the payment of parks fees or the dedication of parkland. Each residential related project would also be required to pay applicable park fees and comply with the on-site open space requirements of the Rancho Cucamonga Municipal Code, which would offset demand for public parks. As a result, the impacts would be less than significant.

3.16.3 MITIGATION MEASURES

The analysis determined that the proposed project would not result in any significant impact on recreational facilities and services. As a result, no mitigation is required.

3.17 TRANSPORTATION

3.17.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may have a significant adverse impact on traffic and circulation if it results in any of the following:

- A conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- A conflict or inconsistency with CEQA Guidelines Section 15064.3 subdivision (b);
- A substantial increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or,
- Inadequate emergency access.

3.17.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? ● Less than Significant Impact.

The proposed project involves the construction of five single-family homes. In order to accurately assess future traffic conditions with the proposed project, trip generation estimates were developed for the proposed project. Trip generation rates for the proposed project are based on the nationally recognized recommendations contained in "Trip Generation" Manual, 10th edition, published by the Institute of Transportation Engineers (ITE). Table 3-11 shows a summary of trip generation estimates for the proposed project. As shown in Table 3-13, the proposed project is anticipated to generate approximately 50 trips per day, with five of those trips occurring during the evening peak hour.

Table 3-11
Trip Generation Estimates

ITE Land Use/Project Scenario	ITE Code & Unit	Unit	Daily	PM Peak Hour Total
Single-Family Detached Housing	210	Dwelling Units	10.00	1.00
Total	**5**	**Units**	**50**	**5**

Source: ITE Trip Generation Manual, 10th Edition

The number of trips that would be added will not create a significant impact to surrounding roadways and would not impact any street or intersection level of service (LOS). Therefore, the proposed project would not conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. As a result, the potential impacts would be less than significant.

B. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)? ● *Less than Significant Impact.*

According to CEQA Guidelines *§15064.3 subdivision (b)(1),* vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease VMT in the proposed project area compared to existing conditions should be considered to have a less than significant transportation impact.

The proposed project involves the construction of five single-family homes on an infill property that is currently vacant. The proposed project's implementation would have less than significant impacts since the proposed infill project will recycle existing undeveloped or underutilized properties located in established urban areas. It is important to note that the proposed project is an "infill" development, which is seen as an important strategy in combating the release of GHG emissions. Infill development provides a regional benefit in terms of a reduction in VMT since the project is consistent with the regional and State sustainable growth objectives identified in the State's Strategic Growth Council (SGC).[73] Infill development reduces VMT by recycling existing undeveloped or underutilized properties located in established urban areas. When development is located in a more rural setting, such as further east in the desert areas, employees, patrons, visitors, and residents may have to travel farther since rural development is often located a significant distance from employment, entertainment, and population centers. Consequently, this distance is reduced when development is located in urban areas since employment, entertainment, and population centers tend to be set in more established communities. As a result, the potential impacts would be less than significant.

C. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ● *No Impact.*

[73] California Strategic Growth Council. http://www.sgc.ca.gov/Initiatives/infill-development.html.

Vehicular access to the proposed project site would be provided by an extension of Arapaho Road which would end in a cul-de-sac. Access to each of the five new single-family homes would be provided by driveway connections with Arapaho Road. Approximately 50 vehicle trips would occur at the proposed project site every day and five vehicle trips would occur during the PM peak hour. This low volume of traffic is not expected to cause any street delays or long queues. The proposed project would be located in an area that is not readily accessible from a major arterial road. Therefore, the street that leads to the proposed project (Arapaho Road) would not handle a significantly larger amount of traffic. The existing public streets would remain unchanged and no modifications resulting in an increased hazard would be made to the existing street system. The proposed project would not expose future residents to dangerous intersections or sharp curves and the proposed project will not introduce incompatible equipment or vehicles to the adjacent roads. As a result, no impacts would occur.

D. Would the project result in inadequate emergency access? ● No Impact.

The proposed project would not impede emergency access to any neighboring properties. Vehicular access to the proposed project site would be provided by an extension of Arapaho Road which would end in a cul-de-sac. Access to each of the five new single-family homes would be provided by driveway connections with Arapaho Road. All construction staging areas would be located within the proposed project site and at no time will any of the surrounding streets be completely closed to traffic. At no time would any local streets or parcels be closed to traffic. The design of the new street extension and cul-de-sac will be reviewed by the Fire Department to ensure it meets all pertinent requirements. As a result, the proposed project's implementation would not result in any impacts.

3.17.3 MITIGATION MEASURES

The analysis determined that no significant traffic and circulation impacts would result from the proposed project's implementation. As a result, no mitigation is required.

3.18 TRIBAL CULTURAL RESOURCES

3.18.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on tribal cultural resources if it results in any of the following:

- 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 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 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.

3.18.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. 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 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)? ● Less than Significant Impact with Mitigation.

A Tribal Resource is defined in Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

- 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.

- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "non-unique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Assembly Bill 52 (AB 52) established a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Public Resources Code §21074, as part of CEQA. As specified in AB 52, lead agencies must provide notice inviting consultation to California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the Tribe has submitted a request in writing to be notified of proposed projects. The Tribe must respond in writing within 30 days of the City's AB-52 notice. The Native American Heritage Commission (NAHC) provided a list of Native American groups and individuals who might have knowledge of the religious and/or cultural significance of resources that may be in and near the proposed project site.

While there are currently no recorded archaeological sites within the proposed project site area, buried resources could potentially be unearthed during construction activities. As a result, mitigation is required. Title 14; Chapter 3; Article 5; Section 15064.5 of CEQA would apply in terms of the identification of significant archaeological resources and their salvage. Adherence to the above-mentioned mitigation would reduce potential impacts to levels that would be less than significant.

B. *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 resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe. ● Less than Significant Impact.*

The proposed project site is located within an urbanized area of the City that has been disturbed due to past development and there is a limited likelihood that artifacts would be encountered. The proposed project's construction would involve shallow excavation for the installation of the bio retention system, building footings, utility lines, and other underground infrastructure. Ground disturbance would involve grading and earth-clearing activities for the installation of the grass and landscaping and other on-site improvements. In addition, the proposed project area is not located within an area that is typically associated with habitation sites, foraging areas, ceremonial sites, or burials. Nevertheless, mitigation was provided in the previous subsection. With the implementation of this mitigation measure, tribal cultural impacts would be reduced to levels that would be less than significant.

3.18.3 MITIGATION MEASURES

Although parts of the proposed project site have been subject to disturbance to accommodate the existing structures, the project site is situated in an area of high archaeological significance. As a result, the following mitigation is required to address the potential impacts on tribal/cultural resources:

Mitigation Measure No. 14 (Tribal Cultural Resources). The Project Applicant shall be required to retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and is listed under the NAHC's Tribal Contact list for the area of the project location. This list is provided by the NAHC. The monitor/consultant will only be present on-site during the construction phases that involve ground disturbing activities. Ground disturbing activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that may include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor/consultant will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

Mitigation Measure No. 15 (Tribal Cultural Resources). Upon discovery of any archaeological resources, cease construction activities in the immediate vicinity of the find until the find can be assessed. All archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and tribal monitor/consultant approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section15064.5 [f]) for historical resources.

Mitigation Measure No. 16 (Tribal Cultural Resources). If a resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes.

Mitigation Measure No. 17 (Tribal Cultural Resources). Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) and PRC 5097.98 shall be followed. Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes.

Mitigation Measure No. 18 (Tribal Cultural Resources). Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner

has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) and PRC 5097.98 shall be followed.

Mitigation Measure No. 19 (Tribal Cultural Resources). Upon discovery, the tribal and/or archaeological monitor/consultant/consultant will immediately divert work at minimum of 150 feet and place an exclusion zone around the burial. The monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) as mandated by state law who will then appoint a Most Likely Descendent (MLD).

Mitigation Measure No. 20 (Tribal Cultural Resources). If the Gabrieleno Band of Mission Indians – Kizh Nation is designated MLD, the following treatment measures shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. These remains are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects.

Mitigation Measure No. 21 (Tribal Cultural Resources). Prior to the continuation of ground disturbing activities, the land owner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. The Tribe will work closely with the qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be taken which includes at a minimum detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. Cremations will either be removed in bulk or by means as necessary to ensure completely recovery of all material. If the discovery of human remains includes four or more burials, the location is considered a cemetery and a separate treatment plan shall be created. Once complete, a final report of all activities is to be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive diagnostics on human remains. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

3.19 UTILITIES & SERVICE SYSTEMS

3.19.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact on utilities if it results in any of the following:

- The requirement or relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

- Insufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry and multiple dry years;

- A determination by the wastewater treatment provider which serves or may serve the proposed project that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments;

- The generation of 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;

- Incompliance with Federal, State, and local management and reduction statutes and regulations related to solid waste.

3.19.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? ● Less than Significant Impact.*

The proposed project would involve the construction of five single-family homes. Due to the nature of the proposed project, water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities would not be required to be relocated or constructed. The increase in demand for these facilities and services can be adequately handled and no expansion of these services is required (refer to the following subsections). These utility lines, however, would need to be extended to the site. The proposed five single family units would connect to utility lines located in Arapaho Road including existing electrical power lines and an existing eight-inch water main. The sewer and water lines would be extended into the proposed project site within the proposed Arapaho Road cul-de-sac. From there, laterals would be extended to the individual units. Electrical services are provided by the Southern California Edison (SCE) and the Rancho Cucamonga Municipal Utility (RCMU). Domestic water service is provided by the Cucamonga Valley Water District (CVWD). The Southern California Gas company provides natural gas service. These services would be readily available to the proposed project site upon request. Aboveground

electrical lines and an underground gas line extend to the site. As a result, the impacts would be less than significant.

B. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? ● Less than Significant Impact.

Water services in Rancho Cucamonga are provided by the Cucamonga Valley Water District (CVWD). In addition to Rancho Cucamonga, the CVWD serves portions of the cities of Upland, Ontario, and Fontana, and some unincorporated areas of San Bernardino County. In total, CVWD has approximately 49,600 water connections and serves a population of approximately 186,000 within a 47 square-mile area.

The Cucamonga Valley Water District (CVWD) is the sole water provider for Rancho Cucamonga. The District's service area encompasses the entire City of Rancho Cucamonga, the City's Sphere of Influence and, in addition, portions of Fontana, Ontario, and Upland. The majority of CVWD's water comes from two sources: imported water from the Metropolitan Water District (MWD) and groundwater from the Chino and Cucamonga Basins. Other sources include local surface and sub-surface water flows, such as local canyon runoff, and recycled water. CVWD primary sources of water supply come from groundwater and imported water. The District primarily gets their water supply from groundwater in order to keep it at a reasonable cost for their customers by limiting the dependence of importing water. Building new wells to capture groundwater helps to ensure there are sufficient water supplies during time of drought, regulatory constraints or emergencies. The CVWD maintained 23 groundwater wells, of which 13 were in service with a maximum production capacity of 20,490 gallons per minute (or an annual production equivalent of 33,076 acre-feet). CVWD's water distribution system is comprised of 690 miles of distribution mains, 22 pump stations, and 39 pressure-reducing valve stations. The CVWD has 34 water storage facilities that vary in size from 13 to 16 million gallons, with a combined design storage capacity of 89.6 million gallons. The CVWD relies on the City's General Plan to project future water needs and demand. Since the proposed 5-unit development is consistent with the General Plan, demand can be accommodated.

As shown in Table 3-12 below, the proposed project would generate a net increase in water demand of approximately 1,950 gallons per day (gpd) of water. Therefore, the City's water purveyor would be able to accommodate the proposed project's increased water demand and no new or expanded water treatment facilities would be required. With respect to water treatment facilities, the proposed project would have a less than significant impact.

Table 3-12
Water Consumption (gals/day)

Use	Unit	Factor	Generation
Single-Family Residential	5 units	390 gals/day/unit	1,950 gals/day
Total Generation			1,950 gals/day

Source: Blodgett Baylosis Environmental Planning.

The existing water supply facilities can accommodate this additional demand. Therefore, the proposed project would have sufficient water supplies available to serve the proposed project. As a result, the impacts would be less than significant.

C. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? ● Less than Significant Impact.

With a large portion of water coming from local sources that include canyon surface waters and groundwater, CVWD has developed three water treatment facilities so that water quality meets all Federal and State requirements:

- Arthur H. Bridge Treatment Plant
- Royer Nesbit Treatment Plant
- Lloyd W. Michael Treatment Plant

Water that is imported from the Metropolitan Water District is treated at the Lloyd W. Michael Water Treatment Plant. The treated water flows into storage reservoirs and then into the distribution system. Groundwater and surface water is treated at the Arthur H. Bridge and Royer Nesbit Water Treatment Plants. After treatment, the water is stored in enclosed reservoirs ready for distribution to consumers.

Wastewater is any water that drains from showers, sinks, and toilets in buildings. Other sources of wastewater include laundry facilities and industrial and manufacturing operations. Wastewater conveyance is handled by the City and CVWD, and wastewater is processed by CVWD and the Inland Empire Utilities Agency (IEUA). The IEUA operates the wastewater Regional Plant No. 4 located at the intersection of 6th Street and Etiwanda Avenue in Rancho Cucamonga. This wastewater plant treats an annual flow of seven million gallons per day, with an ultimate build-out capacity of 28 million gallons per day. As indicated in Table 3-13, the future development is projected to generate 1,300 gallons of effluent on a daily basis, representing a fraction of one percent of the available wastewater regional plant capacity. As such, the wastewater regional plant would have adequate capacity to serve the proposed project and the impacts would be less than significant.

Table 3-13
Wastewater (Effluent) Generation (gals/day)

Use	Unit	Factor	Generation
Single-Family Residential	5 units	260 gals/day/unit	1,300 gals/day
Total Generation			1,300 gals/day

Source: Blodgett Baylosis Environmental Planning.

D. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ● Less than Significant Impact.

Solid waste collection and transport are handled by contracted private firms that haul collected materials to several regional landfills and materials recycling facilities. Burrtec Services, Inc collects residential solid waste in the City and the waste is transported to the West Valley Transfer Station and other handlers in the surrounding area. For household waste disposal, Rancho Cucamonga contracts with a private hauling firm that utilizes a three-container system for recycling and waste disposal. The blue bin allows for recyclable materials including paper, cartons, metal cans and trays, glass bottles and jars, and plastic container items. The green bin allows for green waste such as grass clippings, brush, prunings, leaves, tree trimmings, twigs, weeds, and other green waste. The black bin allows for materials that are not recyclable or compostable. The City also implements various programs with local businesses and public agencies to increase recycling efforts.

In order to reduce the amount of solid waste generated in California, the California Integrated Waste Management Board (CIWMB) required that the amount of solid waste sent to landfills be reduced by 50 percent by the year 2000, per Assembly Bill 939 (AB 939). In 2008, the California State Senate passed Senate Bill 1016 (SB 1016) that builds upon AB 939. The City of Rancho Cucamonga has achieved and exceeded the target numbers identified by CIWMB in SB 1016 and continues to improve existing programs, as well as develop and implement new programs to minimize waste generation and increase recycling. As indicated in Table 3-14, the future daily solid waste generation is projected to be 61.2 pounds per day. The proposed project would contribute a limited amount to the waste stream.

Table 3-14
Solid Waste Generation (lbs/day)

Use	Unit	Factor	Generation
Single-Family Residential	5 units	12.23 lbs/day/unit	61.2 lbs/day
Total Generation			61.2 lbs/day

Source: Blodgett Baylosis Environmental Planning

The proposed project, like all other development in Rancho Cucamonga, will be required to adhere to City ordinances (Municipal Code Title 8, Health & Safety, Chapter 8.17. Refuse, Recyclables, and Organics Collections) with respect to waste reduction and recycling. The amount of solid waste generated by the proposed project is within the available capacities of area landfills. Therefore, the proposed project's impacts to regional landfill capacity would be less than significant.

E. Would the project comply with Federal, State, and local management and reduction statutes and regulations related to solid waste? ● No Impact.

The proposed project, like all other development in Rancho Cucamonga, would be required to adhere to City ordinances (Municipal Code Title 8, Health & Safety, Chapter 8.17. Refuse, Recyclables, and Organics

Collections) including with respect to waste reduction and recycling. As a result, no impacts related to State and local statutes governing solid waste are anticipated.

3.19.3 MITIGATION MEASURES

The analysis of utilities impacts indicated that no significant impacts would result from the proposed project's approval and subsequent implementation. As a result, no mitigation is required.

3.20 WILDFIRE

3.20.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Rancho Cucamonga, acting as Lead Agency, a project may be deemed to have a significant adverse impact if it results in any of the following located in or near State responsibility areas or lands classified as very high fire hazard severity zones:

- If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, a substantial impairment of an adopted emergency response plan or emergency evacuation plan;

- If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, the exacerbation of wildfire risks due to slope, prevailing winds, and other factors, and thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;

- If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, the requirement of 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 would the project; or,

- If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, the exposure of 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.

3.20.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan? ● Less than Significant Impact.*

The proposed project site and the adjacent properties are urbanized and there are no areas of native or natural vegetation found within the vicinity of the proposed project area.[74] However, Rancho Cucamonga is located 2.50 miles south of the base of the San Gabriel Mountains. This proximity creates the potential for natural hazards. Rancho Cucamonga's location adjacent to the San Bernardino National Forest and San Gabriel Mountains puts it at high risk for Wildland Urban Interface (WUI) fires. This type of fire begins in the chaparral north of the City and can spread to structures in those areas and on the perimeter of the City. Open spaces along the foothills can lead to wildland fires, endangering residential properties that abut the wildland/urban interface.

The threat of fire to hillside developments at the base of the San Gabriel Mountains is of real concern to Rancho Cucamonga residents living in the foothills. In 2003, the Grand Prix Fire burned through the entire Wildland Urban Interface (WUI) area of Rancho Cucamonga over a three-day period. Fifteen homes, three of which were in the City and twelve in the Sphere of Influence, were destroyed and more were damaged. Thousands of homes were threatened and evacuated. Exhibit 3-11 illustrates the fire hazard severity zones identified by the California Department of Forestry and Fire Prevention (CAL Fire). As part of a comprehensive plan to protect Rancho Cucamonga from the threats of wildland fires, the Rancho Cucamonga Fire Protection District (RCFPD) has established recommendations for fire prevention, public education, strategic locations of new fire stations, reduction and modification of vegetation, assurance of adequate water supply, and strict access provisions related to new development. The proposed project site is located on the edge of a very high fire hazard severity zone. However, the City of Rancho Cucamonga General Plan outlines various policies for wildfire abatement. These policies include:

- **Policy LU-8.9:** *Restrict intensive uses and activities in areas where they would be threatened by natural or man-made hazards.*

  Certain portions of our City are vulnerable to flooding and wildfire damage. Though other hazards exist, these two are the most prevalent. We want to make sure that intensities of development in areas vulnerable to these hazards are kept to a minimum and, in the limited cases where they do occur, that life and property are protected to the maximum degree feasible.

- **Policy LU-10.2:** *Encourage the planting of edible landscapes, using citrus trees, box gardens, vineyards, and other edible plant materials whenever possible.*

  Edible landscaping is the process of planting edible plants in spaces other than in a traditional garden. Edible landscapes save space as they combine landscaping and food-growing into a single space. It is a very sustainable method of landscaping that refers back to Rancho Cucamonga's beginnings as an agrarian community. Converting power line utility corridors to this use can promote and preserve the heritage of Rancho Cucamonga while significantly reducing the fire hazards presented by these uninterrupted rights of way. Utility corridors and the invasive grasses that they support have a high potential for transporting hillside wildfires into the residential and urban areas of the City.

[74] Blodgett Baylosis Environmental Planning. *Site Survey*. Survey was conducted on December 19, 2018.

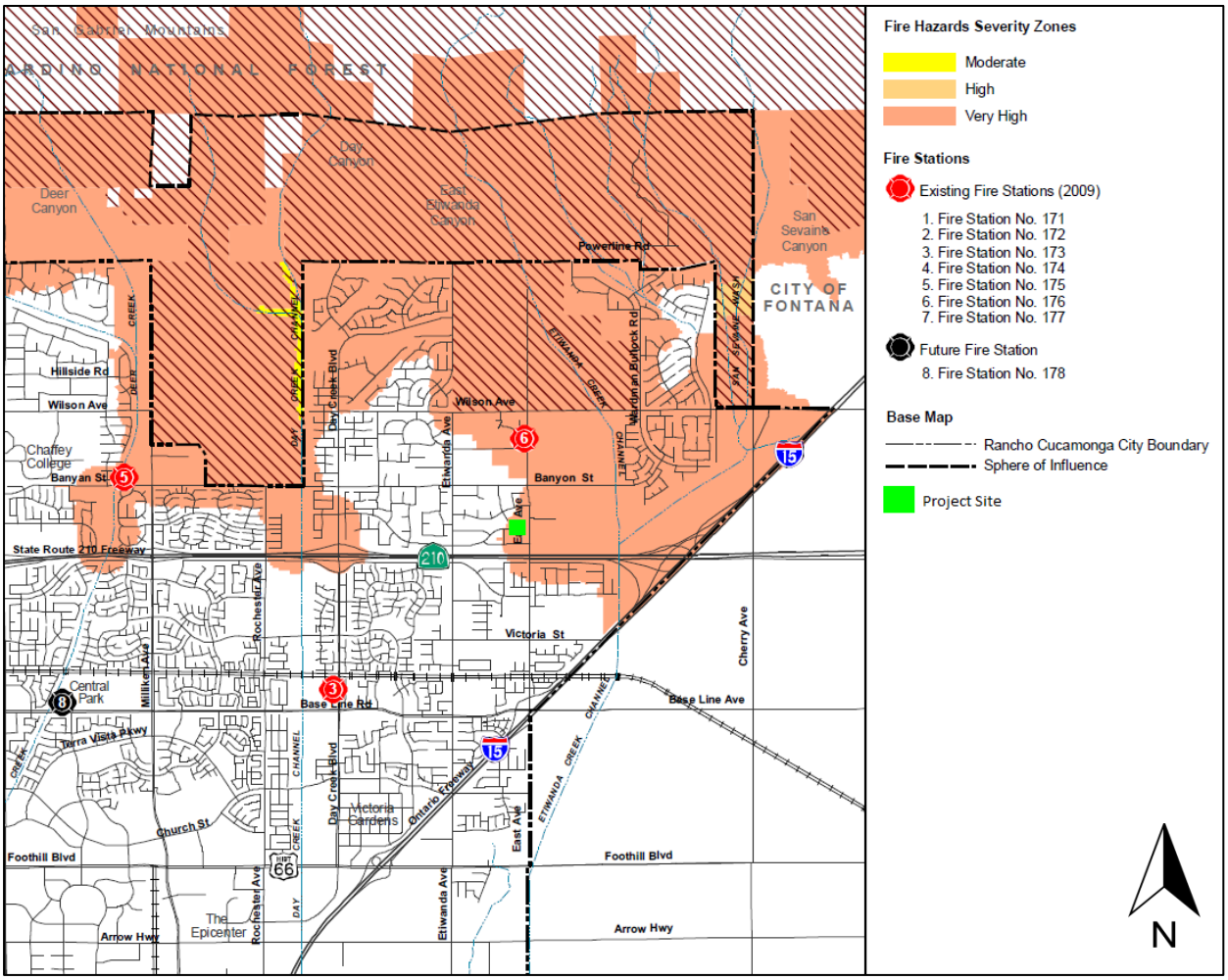

EXHIBIT 3-11
FIRE HAZARD SEVERITY ZONES
SOURCE: CITY OF RANCHO CUCAMONGA GENERAL PLAN

- **Policy LU-10.3:** *Promote low water usage and emphasize fire-safe defensible space.*

  With water a limited resource and wildfires a constant threat, the use of drought tolerant or fire resistant plant material can make a big difference.

- **Policy RC-3.2:** *Encourage the conversion of water-intensive turf/landscape areas to landscaping that uses climate-appropriate plants, efficient irrigation systems, and water efficient site maintenance.*

  To conserve water resources and control maintenance costs, the City's current Water Efficiency Ordinance discourages extensive use of non-native vegetation that requires excessive watering. In particular, the Water Efficiency Ordinance specifies the use of drought tolerant and fire-resistant vegetation with an emphasis on native species. The City updated its Water Efficiency Ordinance based on the State Department of Water Resources model ordinance, which allows for artificial turf.

- **Policy RC-8.6:** *Consult with the Fire District, San Bernardino County, and State agencies to develop plans that protect open space from fire hazards.*

  Over the years, the City has learned a great deal on how landscape design can minimize the risk from fire hazards. The Fire District has been proactive in defining standards and implementing those standards throughout the City.

- **Policy PS-1.1:** *Reduce the loss of life, property, and injuries incurred as a result of fires by offering and supporting comprehensive fire prevention, public education, and emergency response programs.*

  Fire hazards pose a threat to Rancho Cucamonga residents, especially in areas near the Wildland Urban Interface (WUI). Fire prevention is effective when it includes public education and appropriate land use restrictions, as well as adequate facilities and personnel to mitigate fires when they occur. The Fire District is expected to continually develop effective prevention and response strategies to address this constant risk.

- **Policy PS-1.2:** *Strive to limit loss of life and property as a result of wildland fires through adequate wildland fire protection services, education and enforcement of defensible space and brush clearance requirements, and wildland fire evacuation and preparedness plans.*

  The dry vegetation north of the City is conducive to quick moving and high-heat fires that can spread rapidly and cause damage to structures and homes. Keeping brush and vegetation away from structures is critical to decreasing risks to these structures, and evacuation and preparedness plans are necessary to ensure that responses to wildland fires are coordinated and efficient. The Fire District shall routinely assess the current threat to life and property in the WUI. Needs for improvements in response capability will be identified. The City should also expand the existing education and warning system that can be activated following significant wildland fires on the hillsides above the City. Education efforts can include mailers to households in the affected areas,

public meetings, and/or door-to-door education campaigns that inform the public of wildland fire safety tips and procedures.

The proposed project will involve the construction of five single-family homes within a project site that is surrounded by existing single-family homes. Due to the nature of the proposed project, the impacts would be less than significant because the impacts would be no greater than those in the surrounding area. In addition, compliance with the abovementioned policies would ensure that the impacts will remain less than significant. Furthermore, the proposed project would not involve the closure or alteration of any existing evacuation routes that would be important in the event of a wildfire. As a result, the impacts would be less than significant.

B. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project 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.*

The proposed project involves the construction of five single-family homes. The proposed project site is located among residential uses and is located in an area that has previously been heavily modified and graded to accommodate the surrounding residential uses. The majority of the proposed project area is currently vacant and covered over in dirt.

There is no risk from wildfire within the proposed project site or the surrounding area given the project site's distance from any area that may be subject to a wildfire event. In addition, the proposed project site is surrounded on all sides by urban uses. The site's future development, including the construction of the new roadway extension that will extend into the site which would allow better access for emergency vehicles. Finally, the new residential development will include new residential construction and landscaping which will further reduce the wildfire risk. As a result, the impacts would be less than significant.

C. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ● Less than Significant Impact.*

The proposed project would include the installation of new utility lines such as gas lines, water lines, etc. These utilities lines will be located below ground surface, which would reduce the likelihood of a fire igniting. In addition, the new roadway extension will extend into the site which would allow better access for emergency vehicles. Finally, the new residential development will include new residential construction and landscaping which will further reduce the wildfire risk. As a result, the impacts would be less than significant.

D. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, 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? ● No Impact.*

A major rainstorm following a wildfire in the local mountains may result in localized flooding and mudslides. The proposed project site is located 2 ½ miles south of the San Gabriel Mountains. Given the distance of the proposed project site from these local mountains, the project site would not be exposed to mud flows. As a result, no impacts would result.

3.20.3 MITIGATION MEASURES

The analysis of wildfire impacts indicated that no significant impacts would result from the proposed project's approval and subsequent implementation. As a result, no mitigation is required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

The following findings can be made regarding the Mandatory Findings of Significance set forth in Section 15065 of the CEQA Guidelines based on the results of this environmental assessment:

- The proposed project *will not* have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. As indicated in Section 3.1 through 3.20, the proposed project would not result in any significant unmitigable environmental impacts.
- The proposed project *would not* have impacts that are individually limited, but cumulatively considerable. The proposed project would not lead to a cumulatively significant impact on any of the issues analyzed herein.
- The proposed project *would not* have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. As indicated in Section 3.1 through 3.20, the proposed project would not result in any significant unmitigable environmental impacts.

SECTION 4 CONCLUSIONS

4.1 FINDINGS

The Initial Study determined that the proposed project is not expected to have significant adverse environmental impacts. The following findings can be made regarding the Mandatory Findings of Significance set forth in Section 15065 of the CEQA Guidelines based on the results of this Initial Study:

- The proposed project *would not* have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory.
- The proposed project *would not* have impacts that are individually limited, but cumulatively considerable.
- The proposed project *would not* have environmental effects which would cause substantially adverse effects on human beings, either directly or indirectly.
- A Mitigation Reporting and Monitoring Program *would be* required.

4.2 MITIGATION MONITORING

In addition, pursuant to Section 21081(a) of the Public Resources Code, findings must be adopted by the decision-maker coincidental to the approval of a Mitigated Negative Declaration, which relates to the Mitigation Monitoring Program. These findings shall be incorporated as part of the decision-maker's findings of fact, in response to AB-3180 and in compliance with the requirements of the Public Resources Code. In accordance with the requirements of Section 21081(a) and 21081.6 of the Public Resources Code, the City of La Puente can make the following additional findings:

- A mitigation monitoring and reporting program will be required; and,
- An accountable enforcement agency or monitoring agency shall be identified for the mitigation measures adopted as part of the decision-maker's final determination.

Mitigation measures have been recommended as a means to reduce or eliminate potential adverse environmental impacts to insignificant levels. AB-3180 requires that a monitoring and reporting program be adopted for the recommended mitigation measures.

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SECTION 5 REFERENCES

5.1 PREPARERS

Blodgett Baylosis Environmental Planning
2211 South Hacienda Boulevard, Suite 107
Hacienda Heights, CA 91745
(626) 336-0033

Marc Blodgett, Project Principal
Alejandra Rocha, Project Manager
Alexander Huynh, Project Planner

5.2 REFERENCES

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APPENDICES

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APPENDIX A:

AIR QUALITY WORKSHEETS

Rancho Cucamonga Five Residential Units

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	5.00	Dwelling Unit	3.36	12,000.00	14

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - per site plan

Construction Phase - per ISMND

Woodstoves - no woodstoves or fireplaces

Construction Off-road Equipment Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	230.00	110.00

Rancho Cucamonga Five Residential Units - South Coast AQMD Air District, Summer

tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	18.00	43.00
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	PhaseEndDate	2/22/2021	10/31/2020
tblConstructionPhase	PhaseEndDate	1/1/2021	7/31/2020
tblConstructionPhase	PhaseEndDate	2/14/2020	2/29/2020
tblConstructionPhase	PhaseEndDate	1/27/2021	9/30/2020
tblConstructionPhase	PhaseEndDate	2/4/2020	1/31/2020
tblConstructionPhase	PhaseStartDate	1/28/2021	10/1/2020
tblConstructionPhase	PhaseStartDate	2/15/2020	3/1/2020
tblConstructionPhase	PhaseStartDate	2/5/2020	2/1/2020
tblConstructionPhase	PhaseStartDate	1/2/2021	8/1/2020
tblConstructionPhase	PhaseStartDate	1/29/2020	1/1/2020
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	4.25	0.00
tblFireplaces	NumberNoFireplace	0.50	0.00
tblFireplaces	NumberWood	0.25	0.00
tblGrading	AcresOfGrading	10.00	4.00
tblLandUse	LandUseSquareFeet	9,000.00	12,000.00
tblLandUse	LotAcreage	1.62	3.36
tblWoodstoves	NumberCatalytic	0.25	0.00
tblWoodstoves	NumberNoncatalytic	0.25	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.1579	42.4721	22.2495	0.0401	18.2675	2.1989	20.4664	9.9840	2.0230	12.0071	0.0000	3,891.0967	3,891.0967	1.1978	0.0000	3,921.0407
Maximum	**4.1579**	**42.4721**	**22.2495**	**0.0401**	**18.2675**	**2.1989**	**20.4664**	**9.9840**	**2.0230**	**12.0071**	**0.0000**	**3,891.0967**	**3,891.0967**	**1.1978**	**0.0000**	**3,921.0407**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.1579	42.4721	22.2495	0.0401	7.2470	2.1989	9.4460	3.9263	2.0230	5.9494	0.0000	3,891.0967	3,891.0967	1.1978	0.0000	3,921.0407
Maximum	**4.1579**	**42.4721**	**22.2495**	**0.0401**	**7.2470**	**2.1989**	**9.4460**	**3.9263**	**2.0230**	**5.9494**	**0.0000**	**3,891.0967**	**3,891.0967**	**1.1978**	**0.0000**	**3,921.0407**

Rancho Cucamonga Five Residential Units - South Coast AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	60.33	0.00	53.85	60.67	0.00	50.45	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2707	4.7700e-003	0.4134	2.0000e-005		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	0.7428	0.7428	7.2000e-004	0.0000	0.7608
Energy	4.5200e-003	0.0386	0.0164	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003		49.3089	49.3089	9.5000e-004	9.0000e-004	49.6019
Mobile	0.0926	0.4678	1.2465	4.5100e-003	0.3600	3.5100e-003	0.3635	0.0963	3.2800e-003	0.0996		458.6413	458.6413	0.0218		459.1868
Total	**0.3679**	**0.5112**	**1.6764**	**4.7800e-003**	**0.3600**	**8.9100e-003**	**0.3689**	**0.0963**	**8.6800e-003**	**0.1050**	**0.0000**	**508.6929**	**508.6929**	**0.0235**	**9.0000e-004**	**509.5495**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2707	4.7700e-003	0.4134	2.0000e-005		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	0.7428	0.7428	7.2000e-004	0.0000	0.7608
Energy	4.5200e-003	0.0386	0.0164	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003		49.3089	49.3089	9.5000e-004	9.0000e-004	49.6019
Mobile	0.0926	0.4678	1.2465	4.5100e-003	0.3600	3.5100e-003	0.3635	0.0963	3.2800e-003	0.0996		458.6413	458.6413	0.0218		459.1868
Total	**0.3679**	**0.5112**	**1.6764**	**4.7800e-003**	**0.3600**	**8.9100e-003**	**0.3689**	**0.0963**	**8.6800e-003**	**0.1050**	**0.0000**	**508.6929**	**508.6929**	**0.0235**	**9.0000e-004**	**509.5495**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2020	1/31/2020	5	23	
2	Grading	Grading	2/1/2020	2/29/2020	5	20	
3	Building Construction	Building Construction	3/1/2020	7/31/2020	5	110	
4	Paving	Paving	8/1/2020	9/30/2020	5	43	
5	Architectural Coating	Architectural Coating	10/1/2020	10/31/2020	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 24,300; Residential Outdoor: 8,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Rancho Cucamonga Five Residential Units - South Coast AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0547	0.7359	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.9951	205.9951	5.9200e-003		206.1432
Total	**0.0814**	**0.0547**	**0.7359**	**2.0700e-003**	**0.2012**	**1.5300e-003**	**0.2027**	**0.0534**	**1.4100e-003**	**0.0548**		**205.9951**	**205.9951**	**5.9200e-003**		**206.1432**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0547	0.7359	2.0700e-003	0.2012	1.5300e-003	0.2027	0.0534	1.4100e-003	0.0548		205.9951	205.9951	5.9200e-003		206.1432
Total	**0.0814**	**0.0547**	**0.7359**	**2.0700e-003**	**0.2012**	**1.5300e-003**	**0.2027**	**0.0534**	**1.4100e-003**	**0.0548**		**205.9951**	**205.9951**	**5.9200e-003**		**206.1432**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2342	0.0000	6.2342	3.3331	0.0000	3.3331			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.2342**	**1.2734**	**7.5076**	**3.3331**	**1.1716**	**4.5047**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	**0.0679**	**0.0456**	**0.6132**	**1.7200e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**171.6626**	**171.6626**	**4.9400e-003**		**171.7860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4313	0.0000	2.4313	1.2999	0.0000	1.2999			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**2.4313**	**1.2734**	**3.7048**	**1.2999**	**1.1716**	**2.4715**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0679	0.0456	0.6132	1.7200e-003	0.1677	1.2700e-003	0.1689	0.0445	1.1700e-003	0.0456		171.6626	171.6626	4.9400e-003		171.7860
Total	**0.0679**	**0.0456**	**0.6132**	**1.7200e-003**	**0.1677**	**1.2700e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**171.6626**	**171.6626**	**4.9400e-003**		**171.7860**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e-003	0.1049	0.0250	2.6000e-004	6.4000e-003	5.2000e-004	6.9200e-003	1.8400e-003	5.0000e-004	2.3400e-003		27.4449	27.4449	1.7200e-003		27.4879
Worker	9.0500e-003	6.0800e-003	0.0818	2.3000e-004	0.0224	1.7000e-004	0.0225	5.9300e-003	1.6000e-004	6.0800e-003		22.8884	22.8884	6.6000e-004		22.9048
Total	**0.0123**	**0.1110**	**0.1068**	**4.9000e-004**	**0.0288**	**6.9000e-004**	**0.0294**	**7.7700e-003**	**6.6000e-004**	**8.4200e-003**		**50.3332**	**50.3332**	**2.3800e-003**		**50.3927**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e-003	0.1049	0.0250	2.6000e-004	6.4000e-003	5.2000e-004	6.9200e-003	1.8400e-003	5.0000e-004	2.3400e-003		27.4449	27.4449	1.7200e-003		27.4879
Worker	9.0500e-003	6.0800e-003	0.0818	2.3000e-004	0.0224	1.7000e-004	0.0225	5.9300e-003	1.6000e-004	6.0800e-003		22.8884	22.8884	6.6000e-004		22.9048
Total	**0.0123**	**0.1110**	**0.1068**	**4.9000e-004**	**0.0288**	**6.9000e-004**	**0.0294**	**7.7700e-003**	**6.6000e-004**	**8.4200e-003**		**50.3332**	**50.3332**	**2.3800e-003**		**50.3927**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1837	11.8015	12.2823	0.0189		0.6509	0.6509		0.6005	0.6005		1,804.7070	1,804.7070	0.5670		1,818.8830
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1837**	**11.8015**	**12.2823**	**0.0189**		**0.6509**	**0.6509**		**0.6005**	**0.6005**		**1,804.7070**	**1,804.7070**	**0.5670**		**1,818.8830**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0905	0.0608	0.8176	2.3000e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		228.8835	228.8835	6.5800e-003		229.0480
Total	**0.0905**	**0.0608**	**0.8176**	**2.3000e-003**	**0.2236**	**1.7000e-003**	**0.2253**	**0.0593**	**1.5600e-003**	**0.0609**		**228.8835**	**228.8835**	**6.5800e-003**		**229.0480**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1837	11.8015	12.2823	0.0189		0.6509	0.6509		0.6005	0.6005	0.0000	1,804.7070	1,804.7070	0.5670		1,818.8830
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1837**	**11.8015**	**12.2823**	**0.0189**		**0.6509**	**0.6509**		**0.6005**	**0.6005**	**0.0000**	**1,804.7070**	**1,804.7070**	**0.5670**		**1,818.8830**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0905	0.0608	0.8176	2.3000e-003	0.2236	1.7000e-003	0.2253	0.0593	1.5600e-003	0.0609		228.8835	228.8835	6.5800e-003		229.0480
Total	**0.0905**	**0.0608**	**0.8176**	**2.3000e-003**	**0.2236**	**1.7000e-003**	**0.2253**	**0.0593**	**1.5600e-003**	**0.0609**		**228.8835**	**228.8835**	**6.5800e-003**		**229.0480**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.4131					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**3.6552**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.4131					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**3.6552**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0926	0.4678	1.2465	4.5100e-003	0.3600	3.5100e-003	0.3635	0.0963	3.2800e-003	0.0996		458.6413	458.6413	0.0218		459.1868
Unmitigated	0.0926	0.4678	1.2465	4.5100e-003	0.3600	3.5100e-003	0.3635	0.0963	3.2800e-003	0.0996		458.6413	458.6413	0.0218		459.1868

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	47.60	49.55	43.10	161,412	161,412
Total	47.60	49.55	43.10	161,412	161,412

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.5200e-003	0.0386	0.0164	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003		49.3089	49.3089	9.5000e-004	9.0000e-004	49.6019
NaturalGas Unmitigated	4.5200e-003	0.0386	0.0164	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003		49.3089	49.3089	9.5000e-004	9.0000e-004	49.6019

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	419.125	4.5200e-003	0.0386	0.0164	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003		49.3089	49.3089	9.5000e-004	9.0000e-004	49.6019
Total		**4.5200e-003**	**0.0386**	**0.0164**	**2.5000e-004**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**		**49.3089**	**49.3089**	**9.5000e-004**	**9.0000e-004**	**49.6019**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.419125	4.5200e-003	0.0386	0.0164	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003		49.3089	49.3089	9.5000e-004	9.0000e-004	49.6019
Total		**4.5200e-003**	**0.0386**	**0.0164**	**2.5000e-004**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**		**49.3089**	**49.3089**	**9.5000e-004**	**9.0000e-004**	**49.6019**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2707	4.7700e-003	0.4134	2.0000e-005		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	0.7428	0.7428	7.2000e-004	0.0000	0.7608
Unmitigated	0.2707	4.7700e-003	0.4134	2.0000e-005		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	0.7428	0.7428	7.2000e-004	0.0000	0.7608

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0206					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2376					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0125	4.7700e-003	0.4134	2.0000e-005		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003		0.7428	0.7428	7.2000e-004		0.7608
Total	**0.2707**	**4.7700e-003**	**0.4134**	**2.0000e-005**		**2.2800e-003**	**2.2800e-003**		**2.2800e-003**	**2.2800e-003**	**0.0000**	**0.7428**	**0.7428**	**7.2000e-004**	**0.0000**	**0.7608**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0206					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2376					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0125	4.7700e-003	0.4134	2.0000e-005		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003		0.7428	0.7428	7.2000e-004		0.7608
Total	**0.2707**	**4.7700e-003**	**0.4134**	**2.0000e-005**		**2.2800e-003**	**2.2800e-003**		**2.2800e-003**	**2.2800e-003**	**0.0000**	**0.7428**	**0.7428**	**7.2000e-004**	**0.0000**	**0.7608**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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APPENDIX B:

UTILITIES WORKSHEETS

INTRODUCTION TO UTILITY SCREENING TABLES

The following worksheets are used to evaluated the potential impacts of a project.

Table 1 Definition of Project
This Table is used to establish the proposed development parameters that are used the calculation of utilities usage. The independent variable to be entered is identified by shading. For residential development, the number of housing units should be entered in the shaded area. For non-residential development, the total floor area of development should be entered in the shaded area.

Tables 2 Summary of Project Impacts
Consumption/Generation Rates. This table indicates the development's projected electrical consumption, natural gas consumption, water consumption, effluent generation, and solid waste generation. No modifications should be made to this table.

Tables 3 through 7 Calculation of Project Impacts
Tables 3 through 7 indicate the results of the analysis.
Table 3 Electrical Consumption - This Table calculates the projected electrical consumption for new development. Default generation rates provided in the shaded areas may be changed.
Table 4 Natural Gas Consumption - This Table calculates the projected natural gas useagefor new development. Default generation rates provided in the shaded areas may be changed.
Table 5 Water Consumption - This Table calculates the projected water consumption ratesfor new development. Default generation rates provided in the shaded areas may be changed.
Table 6 Sewage Generation - This Table calculates the projected effluent generation rates for new development. Default generation rates provided in the shaded areas may be changed.
Table 7 Solid Waste Generation - This Table calculates the projected waste generation for new development. Default generation rates provided in the shaded areas may be changed.

Table 1 Project Name: 5 Single-Family Homes

Definition of Project Parameters - Enter independent variable (no. of units or floor area) in the shaded area. The independent variable to be entered is the number of units (for residential development) or the gross floor area (for non-residential development).

Land Use	Independent	Factor
Residential Uses	**Variable**	**Total Units**
Single-Family Residential	No. of Units	5
Medium Density Residential	No. of Units	0
Multiple-Family Residential	No. of Units	0
Mobile Home	No. of Units	0
Office Uses	**Variable**	**Total Floor Area**
Office	Sq. Ft.	0
Medical Office Building	Sq. Ft.	0
Office Park	Sq. Ft.	0
Bank/Financial Services	Sq. Ft.	0
Commercial Uses	**Variable**	**Floor Area/Rooms**
Specialty Retail Commercial	Sq. Ft.	0
Convenience Store	Sq. Ft.	0
Movie Theater	Sq. Ft.	0
Shopping Center	Sq. Ft.	0
Sit-Down Restaurant	Sq. Ft.	0
Fast-Food Restaurant	Sq. Ft.	0
Hotel	Rooms	0
Manufacturing Uses	**Variable**	**Total Floor Area**
Industrial Park	Sq. Ft.	0
Manufacturing	Sq. Ft.	0
General Light Industry	Sq. Ft.	0
Warehouse	Sq. Ft.	0
Public/Institutional	**Variable**	**Total Floor Area**
Public/Institutional	Sq. Ft.	0
Open Space	Sq. Ft.	0

Table 2: Projected Utility Consumption and Generation

Summary of Project Impacts **- Results of analysis identified below. No modifications should be made to this Table.**

Utilities Consumption and Generation	Factor	Rates
Electrical Consumption	kWh/day	77
Natural Gas Consumption	cubic feet/day	91
Water Consumption	gallons/day	1,950
Sewage Generation	gallons/day	1,300
Solid Waste Generation	pounds/day	61

Table 3: Electrical Consumption

Project Component	Units of Measure	Consumption Factor		Projected Consumption
Residential Uses	**No. of Units**	**kWh**	**Variable**	**kWh/Unit/Day**
Single-Family Residential	5	5,625.00	kWh/Unit/Year	77.1
Medium Density Residential	0	5,625.00	kWh/Unit/Year	0.0
Multiple-Family Residential	0	5,625.00	kWh/Unit/Year	0.0
Mobile Home	0	4,644.00	kWh/Unit/Year	0.0
Office Uses	**Sq. Ft.**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Office	0	20.80	kWh/Sq. Ft./Year	0.0
Medical Office Building	0	14.20	kWh/Sq. Ft./Year	0.0
Office Park	0	20.80	kWh/Sq. Ft./Year	0.0
Bank/Financial Services	0	20.80	kWh/Sq. Ft./Year	0.0
Commercial Uses	**Sq. Ft./Rooms**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Specialty Retail Commercial	0	16.00	kWh/Sq. Ft./Year	0.0
Convenience Store	0	16.00	kWh/Sq. Ft./Year	0.0
Movie Theater	0	16.00	kWh/Sq. Ft./Year	0.0
Shopping Center	0	35.90	kWh/Sq. Ft./Year	0
Sit-Down Restaurant	0	49.10	kWh/Sq. Ft./Year	0.0
Fast-Food Restaurant	0	49.10	kWh/Sq. Ft./Year	0.0
Hotel	0	8,955.00	kWh/Sq. Ft./Year	0.0
Manufacturing Uses	**Sq. Ft.**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Industrial Park	0	4.80	kWh/Sq. Ft./Year	0.0
Manufacturing	0	4.80	kWh/Sq. Ft./Year	0.0
General Light Industry	0	4.80	kWh/Sq. Ft./Year	0.0
Warehouse	0	4.80	kWh/Sq. Ft./Year	0.0
Public/Institutional	**Sq. Ft.**	**kWh**	**Variable**	**kWh/Sq. Ft./Day**
Public/Institutional	0	4.80	kWh/Sq. Ft./Year	0.0
Open Space	0	0.00	kWh/Sq. Ft./Year	0.0
Total Daily Electrical Consumption (kWh/day)				77.1

Sources:
Residential rates were derived from the SCAQMD's CEQA Air Quality Handbook (April 1993).
All other rates are from Common Forecasting Methodology VII Demand Forms, 1989

Table 4: Natural Gas Consumption

Project Component	Units of Measure	Consumption Factor		Projected Consumption
Residential Uses	**No. of Units**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft,/Day**
Single-Family Residential	5	6,665.00	Cu. Ft./Mo./Unit	91.3
Medium Density Residential	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Multiple-Family Residential	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Mobile Home	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Office Uses	**Sq. Ft.**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft,/Day**
Office	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Medical Office Building	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Office Park	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Bank/Financial Services	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Rooms**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft,/Day**
Specialty Retail Commercial	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Convenience Store	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Movie Theater	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Shopping Center	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Sit-Down Restaurant	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Fast-Food Restaurant	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Hotel	0	2.90	Cu. Ft./Mo./Room	0.0
Manufacturing Uses	**Sq. Ft.**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft,/Day**
Industrial Park	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Manufacturing	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
General Light Industry	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Warehouse	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Cu. Ft. of Nat. Gas**	**Variable**	**Cu. Ft,/Day**
Public/Institutional	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Open Space	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Total Daily Natural Gas Consumption (cubic feet/day)				91.3

Sources:
South Coast Air Quality Management District, CEQA Air Quality Handbook. April 1993

Table 5: Water Consumption

Project Component	Units of Measure	Consumption Factor		Projected Consumption
Residential Uses	**No. of Units**	**Gals. of Water**	**Variable**	**Gals./Day**
Single-Family Residential	5	390.00	Gals./Day/Unit	1,950.0
Medium Density Residential	0	300.00	Gals./Day/Unit	0.0
Multiple-Family Residential	0	234.00	Gals./Day/Unit	0.0
Mobile Home	0	234.00	Gals./Day/Unit	0.0
Office Uses	**Sq. Ft.**	**Gals. of Water**	**Variable**	**Gals./Day**
Office	0	0.30	Gals./Day/Sq. Ft.	0.0
Medical Office Building	0	0.30	Gals./Day/Sq. Ft.	0.0
Office Park	0	0.30	Gals./Day/Sq. Ft.	0.0
Bank/Financial Services	0	0.15	Gals./Day/Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Room**	**Gals. of Water**	**Variable**	**Gals./Day**
Specialty Retail Commercial	0	0.15	Gals./Day/Sq. Ft.	0.0
Convenience Store	0	0.15	Gals./Day/Sq. Ft.	0.0
Movie Theater	0	0.20	Gals./Day/Sq. Ft.	0.0
Shopping Center	0	0.50	Gals./Day/Sq. Ft.	0.0
Sit-Down Restaurant	0	1.50	Gals./Day/Sq. Ft.	0.0
Fast-Food Restaurant	0	0.12	Gals./Day/Sq. Ft.	0.0
Hotel	0	187.50	Gals./Day/Room.	0.0
Manufacturing Uses	**Sq. Ft.**	**Gals. of Water**	**Variable**	**Gals./Day**
Industrial Park	0	0.30	Gals./Day/Sq. Ft.	0.0
Manufacturing	0	0.30	Gals./Day/Sq. Ft.	0.0
General Light Industry	0	0.30	Gals./Day/Sq. Ft.	0.0
Warehouse	0	0.05	Gals./Day/Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Gals. of Water**	**Variable**	**Gals./Day**
Public/Institutional	0	0.12	Gals./Day/Sq. Ft.	0.0
Open Space	0	0.12	Gals./Day/Sq. Ft.	0.0
Total Daily Water Consumption (gallons/day)				1,950.0

Sources:

Source: Derived from Los Angeles County Sanitation District rates (150% of effluent generation).

Table 6: Sewage Generation

Project Component	Units of Measure	Generation Factor		Projected Consumption
Residential Uses	**No. of Units**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Single-Family Residential	5	260.00	Gals./Day/Unit	1,300.0
Medium Density Residential	0	200.00	Gals./Day/Unit	0.0
Multiple-Family Residential	0	156.00	Gals./Day/Unit	0.0
Mobile Home	0	156.00	Gals./Day/Unit	0.0
Office Uses	**Sq. Ft.**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Office	0	0.20	Gals./Day/Sq. Ft.	0.0
Medical Office Building	0	0.20	Gals./Day/Sq. Ft.	0.0
Office Park	0	0.20	Gals./Day/Sq. Ft.	0.0
Bank/Financial Services	0	0.10	Gals./Day/Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Rooms**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Specialty Retail Commercial	0	0.10	Gals./Day/Sq. Ft.	0.0
Convenience Store	0	0.10	Gals./Day/Sq. Ft.	0.0
Movie Theater	0	0.13	Gals./Day/Sq. Ft.	0.0
Shopping Center	0	0.33	Gals./Day/Sq. Ft.	0.0
Sit-Down Restaurant	0	1.00	Gals./Day/Sq. Ft.	0.0
Fast-Food Restaurant	0	0.08	Gals./Day/Sq. Ft.	0.0
Hotel	0	125	Gals./Day/Room.	0.0
Manufacturing Uses	**Sq. Ft.**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Industrial Park	0	0.20	Gals./Day/Sq. Ft.	0.0
Manufacturing	0	0.20	Gals./Day/Sq. Ft.	0.0
General Light Industry	0	0.20	Gals./Day/Sq. Ft.	0.0
Warehouse	0	0.03	Gals./Day/Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Gals. of Effluent**	**Variable**	**Gals./Day**
Public/Institutional	0	0.10	Gals./Day/Sq. Ft.	0.0
Open Space	0	0.10	Gals./Day/Sq. Ft.	0.0
Total Daily Sewage Generation (gallons/day)				1,300.0

Source: Los Angeles County Sanitation Districts.

Table 7: Solid Waste Generation

Project Component	Units of Measure	Generation Factor		Projected Generation
Residential Uses	**No. of Units**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Single-Family Residential	5	12.23	Lbs./Day/Unit	61.2
Medium Density Residential	0	12.23	Lbs./Day/Unit	0.0
Multiple-Family Residential	0	12.23	Lbs./Day/Unit	0.0
Mobile Home	0	12.23	Lbs./Day/Unit	0.0
Office Uses	**Sq. Ft.**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Office	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Medical Office Building	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Office Park	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Bank/Financial Services	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Commercial Uses	**Sq. Ft./Rooms**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Specialty Retail Commercial	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Convenience Store	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Movie Theater	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Shopping Center	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Sit-Down Restaurant	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Fast-Food Restaurant	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Hotel	0	6.00	Lbs./Day/Room	0.0
Manufacturing Uses	**Sq. Ft.**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Industrial Park	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
Manufacturing	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
General Light Industry	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
Warehouse	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
Public/Institutional Use	**Sq. Ft.**	**Lbs.of Waste**	**Variable**	**Lbs./Day**
Public/Institutional	0	4.00	Lbs./Day/1,000 Sq. Ft.	0.0
Open Space	0	3.00	Lbs./Day/1,000 Sq. Ft.	0.0
Total Daily Solid Waste Generation				61.2

Source: City of Los Angeles CEQA Thresholds Guide, 2006, and
City of Los Angeles Average Solid Waste Generation Rates, April 1981