

**Krameria Avenue Tentative Tract Map No. 37725
Initial Study
Mitigated Negative Declaration**

State Clearinghouse No. _____

Lead Agency:

City of Moreno Valley
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552



Prepared for:

Positive Investments
610 North Santa Anita Avenue
Arcadia, California 91006

Prepared by:

MIG, Inc.
1500 Iowa Avenue, Suite 110
Riverside, California 92507



Public Review Draft
June 3, 2020

- This document is designed for double-sided printing -

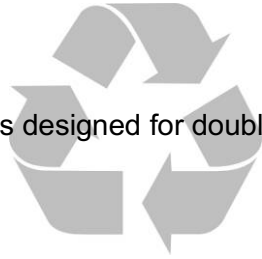


Table of Contents

1 Introduction	1
1.1 – Purpose of CEQA.....	1
1.2 – Tiering.....	2
1.3 – Public Comments.....	3
2 Project Description	5
2.1 – Project Title.....	5
2.2 – Lead Agency Name and Address.....	5
2.3 – Contact Person and Phone Number.....	5
2.4 – Project Location	5
2.5 – Project Sponsor's Name and Address.....	5
2.6 – General Plan Land Use Designation	5
2.7 – Zoning District.....	5
2.8 – Project Description	6
2.9 – Surrounding Land Uses.....	6
2.10 – Environmental Setting	6
2.11 – Required Approvals.....	7
2.12 – Other Public Agency Whose Approval is Required.....	7
3 Determination	15
3.1 – Environmental Factors Potentially Affected	15
3.2 – Determination.....	15
4 Evaluation of Environmental Impacts.....	17
4.1 – Aesthetics	17
4.2 – Agriculture and Forest Resources	20
4.3 – Air Quality	22
4.4 – Biological Resources.....	27
4.5 – Cultural Resources.....	32
4.6 – Energy	37
4.7 – Geology and Soils.....	40
4.8 – Greenhouse Gas Emissions.....	45
4.9 – Hazards and Hazardous Materials	49
4.10 – Hydrology and Water Quality.....	54
4.11 – Land Use and Planning	61
4.12 – Mineral Resources	63
4.13 – Noise.....	64
4.14 – Population and Housing	70
4.15 – Public Services.....	71
4.16 – Recreation.....	74
4.17 – Transportation.....	75
4.18 – Tribal Cultural Resources.....	77
4.19 – Utilities and Service Systems	79
4.20 – Wildfire.....	83
4.21 – Mandatory Findings of Significance.....	85
5 Mitigation Summary.....	91
6 References	97
6.1 – List of Preparers.....	97
6.2 – Persons and Organizations Consulted	97
6.3 – Citations.....	98

List of Appendices

Appendix A	Air Quality Modeling Data
Appendix B	Biological Resources Analyses
Appendix C	Phase I Cultural Resources Technical Report
Appendix D	Geotechnical Investigation Report

List of Tables

Table 1 Surrounding Land Uses	6
Table 2 South Coast Air Basin Attainment Status	23
Table 3 Estimated Maximum Daily Construction Emissions.....	23
Table 4 Five Acre Localized Significance Threshold Analysis.....	25
Table 5 South Coast Air Basin Attainment Status	23
Table 6 South Coast Air Basin Attainment Status	23
Table 7 Greenhouse Gas Emissions Inventory	47
Table 8 Vibration Damage Potential Threshold Criteria	68
Table 9 Vibration Annoyance Potential Threshold Criteria	68
Table 10 Construction Vibration Impacts	69

List of Exhibits

Exhibit 1 Regional Context Map	9
Exhibit 2 Project Vicinity Map	11
Exhibit 3 Tentative Tract Map	13

1 Introduction

The City of Moreno Valley (Lead Agency) received an application from P.I. Properties No. 67 LLC (Project Proponent) for the subdivision of 20.18 gross acres (19.08 net acres) into sixty-six (66) single-family residential lots in the City of Moreno Valley, California. The approval of the application constitutes a *project* that is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code §§ 21000, *et seq.*), and the CEQA Guidelines (14 California Code of Regulations §§ 15000, *et seq.*).

This Initial Study was prepared to assess the short-term, long-term, and cumulative environmental impacts that could result from the proposed project.

This report was prepared to comply with CEQA Guidelines § 15063, which sets forth the required contents of an Initial Study. These include:

- A description of the project, including the location of the project (See Section 2);
- Identification of the environmental setting (See Section 2.11);
- Identification of environmental effects by use of a checklist, matrix, or other methods, provided that entries on the checklist or other form are briefly explained to indicate that there is some evidence to support the entries (See Section 4);
- Discussion of ways to mitigate significant effects identified, if any (See Section 4);
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls (See Section 4.10); and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study (See Section 5).

1.1 – Purpose of CEQA

CEQA § 21000 of the California Public Resources Code provides as follows:

The Legislature finds and declares as follows:

- a) The maintenance of a quality environment for the people of this state now and in the future, is a matter of statewide concern.
- b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
- c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
- d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
- e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
- f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.
- g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing

environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the state to:

- h) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.
- i) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.
- j) Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.
- k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
- l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
- m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
- n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in CEQA § 21002, quoted below:

The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 – Tiering

Section 15152 of the State CEQA Guidelines allows the Lead Agency to “tier” the environmental analysis for separate but related projects. Per Section 15152(b) of the State CEQA Guidelines, tiering “can eliminate repetitive discussions of the same issues and focus the later EIR or Negative Declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or Negative Declaration for another plan, policy, or program or lesser scope, or to a site-specific EIR or Negative Declaration.” Per Section 15152(d) of the State CEQA Guidelines, tiering “shall be limited to situations where the project is consistent with the general plan and zoning of the city or county in which the project is located, except that a project requiring a rezone to achieve or maintain conformity with a general plan may be subject to tiering.”

Section 15168 of the State CEQA Guidelines states that a Program EIR may be prepared when a series of actions that can be characterized as one Project and are related either: (1) geographically, (2) logical parts in the chain of contemplated actions, (3) in connection with issuance or rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The City of Moreno Valley prepared a Program EIR (SCH# 200091075) to evaluate the environmental impacts of adopting and implementing the longer-range vision for development within the City. On July 11, 2006, the City Council approved a comprehensive update of the City's General Plan and certified the related Final Program Environmental Impact Report (Certified EIR). The 2014-2021 Housing Element (Chapter 8) was approved by the City Council on February 11, 2014.

Section 15168(c) of the State CEQA Guidelines allows subsequent activities identified in the Program EIR to be examined in light of the Program EIR to determine whether an additional environmental document must be prepared. Per Section 15168(c)(3), where "subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the Program EIR."

This IS/MND has been prepared in accordance with Sections 15162 and 15168 of the State CEQA Guidelines. The Tentative Tract Map subdividing the Project site into 66 single-family lots is the subject of this IS/MND, which builds on the impact findings of the Certified EIR to further analyze the site-specific impacts of the Tentative Tract Map. Where applicable, the analysis and mitigation measures identified in the Certified EIR are incorporated by reference into this IS/MND.

Based on the analysis presented in this IS/MND, the City of Moreno Valley has determined there are no new significant impacts resulting from the Tentative Tract Map after incorporation of mitigation, nor is there any substantial increase in the severity of any previously identified significant environmental impacts. As such, a tiered IS/MND is the appropriate environmental documentation for the proposed Project.

1.3 – Public Comments

Comments from all agencies and individuals are invited regarding the information contained in this Initial Study. Such comments should explain any perceived deficiencies in the assessment of impacts, identify the information that is purportedly lacking in the Initial Study or indicate where the information may be found. All materials related to the preparation of this Initial Study are available for public review. To request an appointment to review these materials, please contact:

Julia Descoteaux, Associate Planner
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552
951-413-3209

Following a 30-day period of circulation and review of the Initial Study, all comments will be considered by the City of Moreno Valley prior to adoption. All materials related to the preparation of this Initial Study are available for public review. To request an appointment to review these materials, please contact the Planning Division.

This Page Intentionally Left Blank

2 Project Description

2.1 – Project Title

Krameria Avenue Tentative Tract Map (TTM) No. 37725

2.2 – Lead Agency Name and Address

City of Moreno Valley
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552
951-413-3206

2.3 – Contact Person and Phone Number

Julia Descoteaux, Associate Planner
951-413-3209

2.4 – Project Location

The project site is located at the southwest corner of Krameria Avenue and Perris Boulevard in the City of Moreno Valley, Riverside County, California (See Exhibit 1, Regional Context Map and Exhibit 2, Project Vicinity Map). The project site is bounded by residential uses on all sides.

- Latitude 33° 52' 48.96" North, Longitude 117° 13' 42.00" West
- APNs: 316-110-024; 316-110-023; 316-110-005; 316-110-006; and 316-110-022

2.5 – Project Sponsor's Name and Address

P.I. Properties No. 67 LLC
c/o Thatcher Engineering & Associates, Inc.
1461 Ford Street, Suite 105
Redlands, California 92373

2.6 – General Plan Land Use Designation

Residential (5 du/ac)

2.7 – Zoning District

Residential 5 (R5) District

2.8 – Project Description

The Project site is approximately 20.18 gross acres (19.08 net acres) and is currently vacant. The project includes the subdivision of the site into sixty-six (66) single-family residential lots ranging in size from 7,212 square feet to 15,950 square feet. (see Exhibit 3, Tentative Tract Map). The Project also includes one (1) lettered lot at the southwest corner of the site, which would be designated for future use as an infiltration basin. Access to the site would be provided via a local street extension (shown as “E” Street on the TTM) on Krameria Avenue just west of Perris Boulevard, and via the extension of the existing Kettenburg Lane on the south side of the site. Interior circulation will be provided via a roadway connecting both site access points. The Project will also include a stormwater infiltration basin at the southwest corner of the site, landscape and utility easements, street and sidewalk improvements, drainage improvements, and a six-foot high block wall along the north, east and southern boundaries of the TTM. The block wall will be conditioned to be a decorative block wall. The proposed project will connect to existing water, sanitary sewer, electricity, and gas facilities. Water and sewer service are provided by the Eastern Municipal Water District. Electricity would be provided by Moreno Valley Electric Utility and natural gas will be provided by the Southern California Gas Company. Utility undergrounding would be required.

2.9 – Surrounding Land Uses

The project site is bounded by residential uses on all sides. Surrounding uses are summarized in Table 1 (Surrounding Land Uses).

Table 1
Surrounding Land Uses

Direction	General Plan Designation	Zoning District	Existing Land Use
Project Site	Residential (5 du/ac)	Residential 5 (R5) District	Single-Family Homes
North	Residential (5 du/ac)	Residential 5 (R5) District	Single-Family Homes
South	Residential (5 du/ac)	Residential 5 (R5) District	Single-Family Homes
East	Residential (10 du/ac)	Residential 5 (R5) District	Single-Family Homes
West	Residential (5 du/ac)	Residential 5 (R5) District	Single-Family Homes

2.10 – Environmental Setting

The project is located on a vacant site in a developed area in the City of Moreno Valley, Riverside County, California. The project site is surrounded by residential uses and the area is built-out and urbanized. Disturbed non-native vegetation is located on the site. An existing storm drain daylights onto the site near the intersection of Krameria Avenue and Tarano Lane, and flows into an unnamed, ephemeral drainage running north to south along the western boundary of the project site. The ephemeral drainage potentially includes jurisdictional waters of the U.S. and the State and is discussed further under the Biological Resources section of this document.

The site is bound to the west by Tarano Lane, to the south by single-family homes, to the north by Krameria Avenue, and to the east by Perris Boulevard. There are single-family homes located on the opposite side of Tarano Lane, Krameria Avenue, and Perris Boulevard from the Project site. Interstate 215 is located approximately 2.1 miles to the west of the project site. The project site is relatively flat with an elevation ranging between approximately 1,484 to 1,490 feet above mean sea level (AMSL).

- The site does not contain scenic resources.
- The site is not currently being used for agricultural purposes.

2.11 – Required Approvals

The City of Moreno Valley is the only land use authority for this project requiring the following approvals:

- Tentative Tract Map

2.12 – Other Public Agency Whose Approval is Required

- United States Army Corps of Engineers (USACE)
- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)
- Western Riverside County Regional Conservation Authority (RCA)

This Page Intentionally Left Blank



<http://www.migcom.com> • 951-787-9222



Exhibit 1 Regional Context Map

Thatcher Engineering Krameria Avenue TTM No. 37725
Moreno Valley, California

This Page Intentionally Left Blank



This Page Intentionally Left Blank

TENTATIVE TRACT MAP NO. 37725

BEING A SUBDIVISION OF A PORTION OF LOT 17, IN BLOCKS 2 OF RIVERSIDE ALFALFA ACRES, AS SHOWN BY
MAP ON FILE IN BOOK 8 PAGE 21 OF MAPS, RECORDS OF RIVERSIDE COUNTY CALIFORNIA

AUGUST 2019



PROJECT NOTES

1. ASSESSORS PARCEL NUMBERS: 316-110-005, 006, 022, 023, *024
2. GROSS AREA: 20.18 AC
EXISTING NET AREA: 19.08 AC
PROPOSED NET AREA: 17.59 AC
AREA OF DEDICATION: 1.49 AC
3. EXISTING NUMBER OF LOTS: 5
4. PROPOSED NUMBER OF LOTS: 66 SINGLE FAMILY LOTS, * 2 COMMON LETTERED LOTS
5. DRAINAGE AND GRADING SHOWN ON THIS PLAN IS CONCEPTUAL ONLY.
6. EXISTING/PROPOSED ZONING DESIGNATION: RS, SUBURBAN RESIDENTIAL.
7. EXISTING USE: VACANT
8. PROPOSED USE: SINGLE FAMILY RESIDENTIAL
9. PROJECT SITE IS LOCATED WITHIN FEMA ZONE X; AREA OF MINIMAL FLOOD HAZARD PER MAP PANEL NO. 06065C0765G, DATED AUGUST 28, 2008
10. THE TENTATIVE TRACT MAP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER.
11. NO EXISTING STRUCTURES ON SITE.
12. SLOPES GREATER THAN 2 FEET IN HEIGHT ARE SHOWN ON THIS PLAN.
13. ADDITIONAL RW WILL BE DEDICATED ALONG PERRIS BOULEVARD TO ACCOMMODATE NEW BUS TURNOUT.
14. ALL EXISTING FENCING ON ADJACENT PROPERTY TO REMAIN.
15. ALL OVERHEAD UTILITIES SHALL BE UNDERGROUNDED PER CITY MUNICIPAL CODE.

<http://www.migcom.com> • 951-787-9222



Exhibit 3 Tentative Tract Map

Thatcher Engineering Krameria Avenue TTM No. 37725
Moreno Valley, California

This Page Intentionally Left Blank

3 Determination

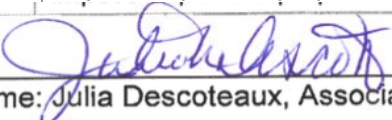
3.1 – Environmental Factors Potentially Affected

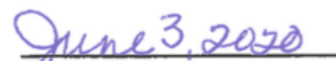
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a 'Potentially Significant Impact' as indicated by the checklist on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture Resources	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input type="checkbox"/>	Geology /Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards & Hazardous Materials
<input type="checkbox"/>	Hydrology / Water Quality	<input type="checkbox"/>	Land Use / Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population / Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities / Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance

3.2 – Determination

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a 'potentially significant impact' or 'potentially significant unless mitigated' impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


 Name: Julia Descoteaux, Associate Planner


 Date

This Page Intentionally Left Blank

4 Evaluation of Environmental Impacts

4.1 – Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view from a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public view 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **Less than Significant Impact.** Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The natural mountainous setting of the Moreno Valley area is critical to its overall visual character and provides scenic vistas for the community. Topography and a lack of dense vegetation or urban development offer scenic views throughout the City, including to and from hillside areas. Scenic features include gently sloping alluvial fans, rugged mountains and steep slopes, mountain peaks and ridges, rounded hills with boulder outcrops, farmland and open space. Scenic vistas provide views of these features from public spaces.

The City of Moreno Valley lies on a relatively flat valley floor surrounded by rugged hills and mountains. The topography of the study area is defined by the Box Springs Mountains and Reche Canyon area to the north, the "Badlands" to the east, and the Mount Russell area to the south. These features provide

the City with outstanding vistas. The Perris Reservoir and Lake Perris Recreation area is adjacent to the City's southeastern boundary. Many of these scenic vistas are outside the City limits and beyond the project area boundary so views of these vistas vary given their distance from the project area. The project is located at the southwest corner of the intersection of Krameria Avenue and Perris Boulevard, in the southern portion of the City. The major aesthetic resources within the study area include views of the mountains and southerly views of the valley. The manmade environment is equally important in terms of scenic values. Buildings, landscaping and signs often dominate the view. Agricultural uses such as citrus groves are less common, but visually pleasing features.

Scenic resources within Moreno Valley are visible from State Route 60, the major transportation route in the area. Upon entering the Moreno Valley from the west, the dominant view is of the Box Springs Mountains to the immediate north and the Mount Russell foothills to the south. Both mountain ranges display numerous rock outcroppings and boulders that add visual character to these landforms. Moreno Peak is part of a prominent landform located south of State Route 60 along Moreno Beach Drive. This landform only rises a few hundred feet above the valley floor but has a unique location near the center of the valley. Moreno Beach Drive, the main route to Lake Perris from State Route 60, offers views of Moreno Peak and a panoramic view of Moreno Valley. Panoramic views of the valley can be seen from elevated segments of some local roads and from hillside residences. The views are particularly attractive on clear days and at night when the glow of city lights can be seen. As State Route 60 traverses east through Moreno Valley, it passes through the Badlands area. Characterized by steep and eroded hillsides, the Badlands form the eastern boundary of the study area and provide a sweeping range of hills that act as a visual backdrop to the valley. Expanses of open land are found throughout the eastern portion of the study area. These tracts of land allow for uninterrupted scenic vistas from State Route 60, Gilman Springs Road and other roadways and provide views of the San Jacinto Valley and the ephemeral Mystic Lake. Views of the San Bernardino and San Gabriel mountains are evident at times from the valley floor. Winter snows in the San Bernardino and San Jacinto Mountains often provide a striking view. As discussed in the General Plan Draft EIR, implementation of General Plan policies 7.7.1 through 7.7.6 will ensure that areas that are designated for development will minimize impacts on scenic vistas by preserving the undisturbed hillsides and other natural landforms.¹ Moreover, the project itself won't alter an existing scenic vista within or outside the City.

Impacts on scenic vistas by the proposed Project will not occur because the project will preserve the undisturbed hillsides and other natural landforms in the area. The project itself won't alter an existing scenic vista within or outside the City. General Plan Objectives 2.10 and 7.7 and associated policies foster development that is visually attractive. Policy 7.7.1 discourages development along prominent ridgelines. Policies 7.7.2 and 7.7.6 minimize the visual impact of overhead utility lines and wireless communication facilities. Policy 7.7.3 calls for reasonable controls to reduce the impact of signs on visual quality. Policies 7.7.4 and 7.7.5 require development along designated scenic roadways to be visually attractive and to allow for views of the surrounding mountains and Mystic Lake. Objective 2.10 and the associated policies ensure that new developments, including new buildings, walls and landscaping, are visually attractive. Moreover, Section 9.03.040(A)(4) of the Moreno Valley Municipal Code states that Dwellings and other accessory structures shall not exceed thirty (30) feet in overall height, provided that on slopes of less than ten (10) percent, the overall height shall not exceed thirty-five (35) feet. According to height requirements and exceptions included in the Municipal Code, all buildings will be consistent with City design and building height requirements and limitations. The proposed Project will be subject to City Design Guidelines, which regulate the height and bulk of the buildings. Therefore, impacts to scenic vistas would be less than significant, and no mitigation is required.

b) **No Impact.** The project site is located on undeveloped land within an area comprised of residential uses, vacant land, and surface street features. The project site is not adjacent to an officially designated

state scenic highway as identified by the California Scenic Highway Mapping System.² The site is also not identified in the Moreno Valley General Plan Conservation Element as being located within or adjacent to a “scenic route” or “view corridor”.³ The Project site is undeveloped and comprised of non-native grasses and two small trees. One tree is a willow tree (*Salix goodingii*) and the other is a Brazilian peppercorn tree (*Schinus molle*). Neither tree is mature nor is considered a scenic resource. There are no rock outcroppings on the Project site and there are no structures. Therefore, the Project would not damage any scenic resources within a State Scenic Highway. No impact will occur.

c) **Less than Significant Impact.** Development of the proposed Project could result in a significant impact if it resulted in substantial degradation of the existing visual character or quality of the project site and its surroundings. Degradation of visual character or quality is defined by substantial changes to the existing site appearance through construction of structures that are poorly designed or conflict with the project site’s existing surroundings. Construction of the proposed project would result in short-term impacts to the existing visual character and quality of the area. Construction activities would require the use of equipment and storage of materials within the project site. However, construction activities are temporary and will not result in any permanent visual impact. The Project site is currently undeveloped. The area surrounding the site is comprised of residential uses, and surface street features. The Project site is located approximately 2 miles east of I-215 and approximately 4 miles south of SR-60.

Similar to residential subdivisions located immediately adjacent to the Project site on all sides, the proposed development will include a 6-foot block wall along the northern, eastern, and southern site boundaries. This block wall will be similar in design to other block walls in the area, giving the project visual continuity with surrounding uses. Further, the conceptual landscape plan for the project identifies the inclusion of unifying streetscape elements, including coordinating streetlights, common landscaped open space, public signage, and hardscaping. These design features would be consistent with the streetscape elements along Krameria Avenue and Perris Boulevard as well as the existing residential subdivisions in the area. The proposed project will change the visual character of the project site by adding structures and landscaping; however, the development will blend with the characteristics of the existing residential uses in the area. The proposed Project is consistent with General Plan Community Design policies. The project will have less than significant impacts on the visual character of the site and its surroundings.

d) **Less than Significant Impact.** Excessive or inappropriately directed lighting can adversely impact night-time views by reducing the ability to see the night sky and stars. Glare can be caused from unshielded or misdirected lighting sources. Reflective surfaces (i.e., polished metal) can also cause glare. Impacts associated with glare range from simple nuisance to potentially dangerous situations (i.e., if glare is directed into the eyes of motorists). Sources of daytime glare are typically concentrated in commercial areas and are often associated with retail uses. Glare results from development and associated parking areas that contain reflective materials such as hi-efficiency window glass, highly polished surfaces, and expanses of pavement.

There are lighting sources adjacent to the site, including free-standing street lights, light fixtures on buildings, and pole-mounted lights. The proposed project includes exterior street lighting and interior lighting. Light prohibiting spillover and glare would be avoided by requiring that light be designed to project downward and the creation of glare on adjacent properties per the requirements of Municipal Code Section 9.10.110. Section 9.10.110 of the Municipal Code prohibits illumination that exceeds 0.5 foot-candles at adjacent properties. Further, Policy 2.10.7 discourages lighting that causes excessive light and glare on adjacent properties. Compliance with the Municipal Code standards for lighting and glare would ensure that lighting and glare impacts would be less than significant.

4.2 – Agriculture and Forest Resources

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

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

a) **Less than Significant Impact.** The proposed Project is located on an undeveloped site, and the surrounding parcels are comprised of single-family residential uses similar to the Project. There are no signs the site has been historically used for agriculture. The map of Important Farmland in California (2014) prepared by the Department of Conservation does not identify the site as being *Prime Farmland*, *Unique Farmland*, or *Farmland of Statewide Importance*.⁴ The Project site is designated as *Farmland*

of *Local Importance* by the Farmland Mapping and Monitoring Program (FMMP), which means the site had been designated for agricultural use in previous local plans.⁵ However, the site is not designated as being *Prime Farmland*, *Unique Farmland*, or *Farmland of Statewide Importance*, and it has since been re-designated for residential use in local plans. The project site is designated for Residential (5 du/ac) in the City's General Plan and is zoned Residential 5 (R5) District. The City's General Plan EIR Agricultural Resources section states that implementation of the General Plan will result in the eventual conversion of the majority of the agricultural uses within the City to urban uses. Further, none of the General Plan Land Use alternatives in the General Plan proposes a land use designation that would provide for the permanent preservation of agricultural land. While a majority of the planning area will eventually be converted to non-agricultural urban uses, some of the existing agricultural activities will continue as interim uses, as allowed under the City's existing Development Code for all zoning categories. The conversion of agricultural land to urban uses is a long and continuing trend within the City. Although it is difficult to quantify the amount of agricultural land that is under development pressure, such pressure exists and will continue with or without implementation of the proposed Project. Thus, Moreno Valley's future development emphasizes mixed-use, commercial, industrial, and residential projects rather than supporting the continuation of agricultural uses, which are becoming less economically viable.⁶ Therefore, impacts to Farmland will be less than significant, and no mitigation is required.

b) **No Impact.** No Williamson Act contracts are active for the project site.⁷ The site is designated for residential use in the City's General Plan and Zoning Code. Therefore, there would be no conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

c) **No Impact.** Public Resources Code § 12220(g) identifies forest land as *land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits*. The Project site and surrounding properties are not currently being managed or used for forest land as identified in Public Resources Code § 12220(g). The Project site has already been disturbed and is surrounded by development on all sides. Therefore, development of this Project would have no impact to any timberland zoning.

d) **No Impact.** The Project site is vacant, disturbed land with limited non-native vegetation including grasses and two non-mature trees. Thus, there would be no loss of forest land or conversion of forest land to non-forest use as a result of this project. No impact would occur.

e) **No Impact.** The Project site is a vacant site within an urbanized environment. The Project is surrounded by similar single-family residential developments on all sides. None of the surrounding sites contain existing forest uses. Development of this proposed Project would not change the existing environment in a manner that would result in the conversion of forest land to a non-forest use. No impact would occur.

4.3 – Air Quality

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **Less than Significant Impact.** A significant impact could occur if the proposed Project conflicts with or obstructs implementation of the South Coast Air Quality Management District (SCAQMD) - South Coast Air Basin 2016 Air Quality Management Plan (AQMP). Conflicts and obstructions that hinder implementation of the AQMP could delay efforts to meet attainment deadlines for criteria pollutants and maintaining existing compliance with applicable air quality standards. Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the South Coast Air Basin 2016 AQMP is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP.⁸

Consistency review is presented below:

(1) The proposed Project will result in short-term construction and long-term pollutant emissions that are less than the CEQA significance emissions thresholds established by the SCAQMD, as demonstrated by the CalEEMod analysis conducted for the proposed site (See Appendix A, Air Quality Modeling Data), summarized in Section III et seq. of this report; therefore, the Project will not result in an increase in the frequency or severity of any air quality standards violation and will not cause a new air quality standard violation.

(2) The CEQA Air Quality Handbook indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan Elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas

refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and off-shore drilling facilities. This Project does not involve a General Plan or Specific Plan Amendment and is not considered a significant project. The proposed Project, a 66-unit residential subdivision, would support a population increase of approximately 224 persons, based on 3.4 persons per dwelling unit. (Moreno Valley 2014-2021 Housing Element). According to the Southern California Associated Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the City of Moreno Valley is anticipated to increase in population from 197,600 in 2012 to 256,600 in 2040, an increase of 59,000. Additionally, it is anticipated that the number of households in Moreno Valley will increase by 21,200 units, and the number of employees in Moreno Valley will increase by 51,800 over that same period. Housing does not directly generate employment. The addition of 66 dwelling units and approximately 242 persons as a result of the proposed Project would be well within the anticipated growth in the City and region. Therefore, the Project would not have an impact on AQMP growth assumptions.

According to the Air Quality Analysis prepared for the proposed Project and the consistency analysis presented above, the proposed Project would not conflict with the AQMP; no impact would occur.

b) **Less than Significant Impact.** A project may have a significant impact if project-related emissions would exceed federal, state, or regional standards or thresholds, or if project-related emissions would substantially contribute to existing or project air quality violations. The proposed project is located within the South Coast Air Basin, where efforts to attain state and federal air quality standards are governed by the South Coast Air Quality Management District (SCAQMD). Both the state of California (state) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants (known as 'criteria pollutants'). These pollutants include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), inhalable particulate matter with a diameter of 10 microns or less (PM₁₀), fine particulate matter with a diameter of 2.5 microns or less (PM_{2.5}), and lead (Pb). The state has also established AAQS for additional pollutants. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. Where the state and federal standards differ, California AAQS are more stringent than the national AAQS.

Air pollution levels are measured at monitoring stations located throughout the air basin. Areas that are in nonattainment with respect to federal or state AAQS are required to prepare plans and implement measures that will bring the region into attainment. Table 2 (South Coast Air Basin Attainment Status) summarizes the attainment status in the project area for the criteria pollutants. Discussion of potential impacts related to short-term construction impacts and long-term area source and operational impacts are presented below.

Table 2
South Coast Air Basin Attainment Status

Pollutant	Federal	State
O ₃ (1-hr)	--	Nonattainment
O ₃ (8-hr)	Nonattainment	Nonattainment
PM ₁₀	Attainment	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
Pb	Nonattainment	Attainment
Sources: ARB		

Construction Emissions

The proposed Project would result in construction-related and operational emissions of criteria pollutants and toxic air contaminants. A project may have a significant impact if project-related emissions exceed federal, state, or regional standards or thresholds, or if project-related emissions will substantially contribute to existing or project air quality violations. The California Emissions Estimator Model (CalEEMod) version 2013.3.2 was utilized to estimate emissions from the proposed construction activities (see Appendix A, Air Quality Modeling Data). This modeling was conducted in September 2019. CalEEMod default settings for construction phases were utilized. Table 3 (Estimated Maximum Daily Construction Emissions) summarizes the results of the CalEEMod outputs. Based on the results of the model, maximum daily emissions from the construction of the proposed Project would not exceed established SCAQMD thresholds. Impacts would be less than significant.

Table 3
Estimated Maximum Daily Construction Emissions

Year	ROG*	NO_x	CO	SO₂	PM¹⁰	PM^{2.5}
Summer 2020	4.81	62.10	34.23	0.10	9.45	5.95
Winter 2020	4.82	62.20	34.32	0.10	9.45	5.95
Summer 2021	37.41	18.14	17.58	0.03	1.27	0.99
Winter 2021	37.41	18.14	17.43	0.03	1.27	0.99
SCAQMD Threshold	75	100	550	150	150	55
Potential Impact?	No	No	No	No	No	No
* Reactive Organic Gases						

Localized Significance Thresholds

As part of SCAQMD's environmental justice program, attention has recently been focusing more on the localized effects of air quality. Although the region may be in attainment for a particular criteria pollutant, localized emissions from construction activities coupled with ambient pollutant levels can cause localized increases in criteria pollutant that exceed national and/or state air quality standards. The General Plan EIR does not provide a localized significance analysis for construction or operation. The analysis below is based on the CalEEMod emissions modeling that was conducted for the Project (Appendix A).

Construction-related criteria pollutant emissions and potentially significant localized impacts were evaluated pursuant to the SCAQMD Final Localized Significance Thresholds Methodology. This methodology provides screening tables for one through five-acre project scenarios, depending on the amount of site disturbance during a day. Maximum daily oxides of nitrogen (NO_x), carbon monoxide (CO), and particulate matter (PM₁₀ and PM_{2.5}) emissions would occur during construction of the project, grading of the project site, and paving. It should be noted that the results summarized in Table 4 (Five Acre Localized Significance Threshold Analysis) include application of SCAQMD Rule 403 and requires (the utilization of applicable best management practices to minimize fugitive dust emissions. A 61 percent reduction in fugitive dust emissions is assumed based on rule requirements. Table 4 summarizes on-site emissions as compared to the local thresholds established for Source Receptor Area (SRA) 24 (Perris Valley). A 25-meter receptor distance was used to reflect the proximity of nearby residential uses to the Project site. No construction phase would exceed any localized threshold as summarized in Table 4.

Table 4
Five Acre Localized Significance Threshold Analysis

Construction Activity	CO	NO_x	PM₁₀	PM_{2.5}
Site Preparation	21.51	42.42	9.24	5.89
Grading	31.96	50.20	5.58	3.41
Building Construction (2020)	16.85	19.19	1.12	1.05
Building Construction (2021)	16.58	17.43	0.96	0.90
Paving	14.65	12.92	0.68	0.62
Architectural Coating	1.82	1.53	0.09	0.09
Maximum	31.96	50.20	9.24	5.89
Threshold	1,577	270	13	8
Potentially Significant?	No	No	No	No
<i>Source: MIG 2019</i>				

Operational Emissions

Long-term emissions are evaluated at build-out of a project. The proposed Project is assumed to be operational in 2022. Mobile source emissions refer to on-road motor vehicle emissions generated from the Project's traffic and are based on CalEEMod default assumptions for emissions rates and vehicle trip lengths. Area source emissions from the Project include stationary combustion emissions of natural gas used for space and water heating (shown in a separate row as energy), yard and landscape maintenance, and an average building square footage to be repainted each year. CalEEMod computes area source emissions based upon default factors and land use assumptions. CalEEMod defaults were used and reflect the 2016 Title 24 standards. Separate emissions were computed for both the summer and winter. The estimated maximum daily operation emissions are summarized in Table 5 (Unmitigated Estimated Maximum Daily Project Operation Emissions (Summer)), and Table 6 (Unmitigated Estimated Maximum Daily Project Operation Emissions (Winter)). As shown in Tables 5 and 6, criteria pollutant emissions from operation of the Project will not exceed the SCAQMD regional daily thresholds for any criteria pollutant emissions. Impacts will be less than significant.

Table 5
Estimated Maximum Daily Project Emissions (Summer)

Activity	Peak Daily Emissions (lbs/day)					
	VOC	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Area	2.83	0.99	5.84	0.01	0.11	0.11
Energy	0.06	0.51	0.22	0.00	0.04	0.04
Mobile	1.23	8.84	14.67	0.06	4.81	1.31
Total	4.12	10.35	20.74	0.07	4.95	1.46
SCAQMD Daily Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	Yes	No	No	No	No
Note: Emissions reported as zero are rounded and not necessarily equal to zero.						

Table 6
Estimated Maximum Daily Project Emissions (Winter)

Activity	Peak Daily Emissions (lbs/day)					
	VOC	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Area	2.83	0.99	5.85	0.01	0.11	0.11
Energy	0.06	0.51	0.22	0.00	0.04	0.04
Mobile	1.04	8.84	12.68	0.06	4.81	1.31
Total	3.93	10.34	18.74	0.07	4.95	1.46

SCAQMD Daily Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	Yes	No	No	No	No
Note: Emissions reported as zero are rounded and not necessarily equal to zero.						

c) **Less than Significant Impact.** The General Plan EIR determined that future development according to any of the three General Plan Alternatives would have the potential to increase the exposure of sensitive receptors, including residents, in the planning area to increased air pollutant levels associated with carbon monoxide (CO). Section 5.2 *Traffic/Circulation* of the General Plan EIR provides an analysis of roadway and intersection operations for General Plan buildout. As depicted in Section 5.2, it was determined that implementation of the General Plan would result in several intersections operating at Level of Service (LOS) E or worse. These intersections would have the potential to create localized CO “hot spot” impacts. Typically, if a sensitive receptor is located within 500 feet of an intersection operating at LOS worse than E, a significant impact would occur. Therefore, it was determined that implementation of the General Plan could result in a significant impact associated with sensitive receptors.

The General Plan EIR notes that concentrations of air pollutants such as carbon monoxide and particulates are much higher adjacent to freeways than concentrations of pollutants in areas located far from freeways. The General Plan EIR notes that the land use plan for Alternatives 1 and 3 would allow new residential development adjacent to State Route 60 (from Moreno Beach Drive east), while Alternative 2 would allow commercial, office and business park development adjacent to the freeway. Therefore, it was found that both Alternatives 1 and 3 would expose more sensitive receptors to air pollution from freeway traffic than would be the case under Alternative 2. The General Plan EIR further notes that implementation of Mitigation Measure AQ10 would reduce the impact. Mitigation Measure AQ10 requires that studies be conducted on the identified street segments to determine if any additional traffic controls, pavement width or other operational system improvements are needed to achieve the desired level of service. However, it was determined that the impact associated with sensitive receptors would remain significant and unavoidable.

The proposed Project is located approximately 2.2 miles east of Interstate 215 and approximately 4.1 miles south of State Route 60. While the General Plan EIR identified significant and unavoidable impacts related to exposure of sensitive receptors to substantial pollutant concentrations, the proposed Project is located far enough away from I-215 and SR-60 as to not be directly impacted. Therefore, the Project will not result in any new significant and unavoidable impacts that were not previously analyzed and accounted for in the General Plan EIR. The Project is consistent with the Residential (5 du/ac) General Plan land use designation, the Residential 5 (R5) District zoning designation, and the allowable development density permitted by those designations. Therefore, the proposed Project will result in a less than significant impact.

d) **Less than Significant Impact.** The General Plan EIR notes that future construction activity allowed according to the three proposed General Plan Alternatives could generate objectionable odors. These odors, however, would be short-term in nature. The General Plan EIR also notes that future industrial and commercial uses could generate objectionable odors. However, odors are not expected from residential developments such as the proposed Project. Any objectionable odor may be reported to the AQMD, which resolves complaints through investigation within one business day of the received complaint, and issuance of Notices to Comply/Notices of Violation, when necessary. The proposed development would not generate any odors. Existing regulations will avoid any significant impacts associated with objectionable odors associated with the proposed Project. Therefore, the Project will not result in a significant objectionable odors impact.

4.4 – Biological Resources

Would the project:

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

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	-------------------------------------	--------------------------	--------------------------

A Determination of Biologically Equivalent or Superior Preservation Report (DBESP) analysis was performed by MIG (January 2020) as required under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*. (See Appendix B)

A Biological Resource Assessment, Burrowing Owl Survey, and MSHCP Consistency Analysis (GBRA-BUOW) was completed by MIG (February 2020) to verify the type, location, and extent of potential sensitive biological resources within the site and vicinity. (See Appendix B)

Environments and habitats associated with wetlands and other aquatic features are regulated under federal, state, and local laws. Each of the laws is administered independently and in coordination with the following agencies: USACE, US Fish and Wildlife Service (USFWS), the US Environmental Protection Agency (EPA), CDFW, RWQCB, and the Western Riverside MSHCP. A Jurisdictional Delineation (JD) was conducted by MIG (February 2020) in order to determine the location and extent of wetland and/or water features within the Project Site that are potentially regulated by the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). (See Appendix B)

A California Rapid Assessment Method (CRAM) Report was prepared by MIG (February 2020) in order to evaluate existing wetland conditions and to assess project impacts and mitigation approaches. (See Appendix B)

a) **Less than Significant Impact with Mitigation Incorporated.**

Special-Status Plants

No special-status plant species were detected on the Project Site during the April 1, 2019 field survey. None of the sixty-four (64) special-status plant species found in the vicinity of the Project Site (refer to Appendix A of the GBRA-BUOW) are expected due to a lack of suitable habitat.

Special-Status Wildlife

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2, Species Considered for Conservation Under the MSHCP Since 1999, 2004). No special-status wildlife species were detected on the Project Site during the April 1, 2019 field survey. Of the 62 special-status wildlife species found in the vicinity of the Project Site (refer to Appendix B of the GBRA-BUOW), suitable habitat is only present for burrowing owl.

Burrowing Owl

A burrowing owl habitat assessment and focused burrow survey was performed during the April 1, 2019 field survey, per the Western Riverside County MSHCP Burrowing Owl Survey Instructions (MSHCP 2006). During this survey, it was determined that no suitable burrowing owl burrows were present onsite. However, because there is suitable burrowing owl habitat on-site, implementation of

Mitigation Measure BIO-1 is required to reduce potential impacts to burrowing owl to a less than significant level.

Nesting Birds

Vegetation communities on the Project Site have the potential to provide nesting habitat for bird species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF) Sections 3503 and 3513. Although no active nests were observed during the April 1, 2109 field survey, there is potential for ground- and tree-nesting birds to establish nests on the Project Site prior to project construction. Destruction of, or disturbance to, an active nest is prohibited. Construction activities including site mobilization, tree removal other vegetation clearing activities, grubbing, grading, and noise/vibration from the operation of heavy equipment also has the potential to result in significant direct (i.e., death or physical harm) and/or indirect (i.e., nest abandonment) impacts to nesting birds. Implementation of Mitigation Measure BIO-2 would be required to reduce potential impacts to nesting birds to a less than significant level.

Mitigation Measures

BIO-1 Pre-Construction Burrowing Owl Survey. Burrowing owl pre-construction surveys shall be conducted within thirty (30) days prior to ground disturbance to avoid direct take of burrowing owls. Pre-construction surveys will follow the guidance outlined in Burrowing Owl Survey Instructions for the Western Riverside MSHCP (2006).

BIO-2: Pre-Construction Nesting Bird Survey. If vegetation removal is scheduled during the nesting season (typically February 1 to September 1), then a focused survey for active nests shall be conducted by a qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) no more than five (5) days prior to the beginning of project-related activities (including but not limited to equipment mobilization and staging, clearing, grubbing, vegetation removal, and grading). Surveys shall be conducted in proposed work areas, staging and storage areas, and soil, equipment, and material stockpile areas. For passerines and small raptors, surveys shall be conducted within a 250-foot radius surrounding the work area (in areas where access is feasible). For larger raptors, such as those from the genus *Buteo*, the survey area shall encompass a 500-foot radius. Surveys shall be conducted during weather conditions suited to maximize the observation of possible nests and shall concentrate on areas of suitable habitat. If a lapse in project-related work of five (5) days or longer occurs, an additional nest survey shall be required before work can be reinitiated. If nests are encountered during any preconstruction survey, a qualified biologist shall determine if it may be feasible for construction to continue as planned without impacting the success of the nest, depending on conditions specific to each nest and the relative location and rate of construction activities. If the qualified biologist determines construction activities have potential to adversely affect a nest, the biologist shall immediately inform the construction manager to halt construction activities within minimum exclusion buffer of 50 feet for songbird nests, and 200 to 500 feet for raptor nests, depending on species and location. Active nest(s) within the Project Site shall be monitored by a qualified biologist during construction if work is occurring directly adjacent to the established no-work buffer. Construction activities within the no-work buffer may proceed after a qualified biologist determines the nest is no longer active due to natural causes (e.g. young have fledged, predation, or other non-anthropogenic nest failure).

b) **No Impact.** Ruderal vegetation communities, exotic trees, and developed areas are present throughout the entirety of the Project Site. No sensitive natural vegetation communities or riparian

habitat are present on the Project Site. Therefore, no impacts to riparian habitat or other sensitive natural vegetation communities are anticipated.

c) **Less than Significant with Mitigation Incorporated.** A jurisdictional delineation was performed on the Project Site on June 13, 2019. An unnamed ephemeral drainage (D1) flowing north to south along the western Project Site boundary represents an aquatic feature subject to the jurisdiction of the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) (Attachment E-6, *Biological Resources Map* and Attachment E-8, *Current Project Site Photographs, MIG Jurisdiction Delineation Report 2020*). The CDFW regulates not only the discharge of dredged or fill material into streambeds, but all activities that alter streams and lakes and their associated riparian vegetation habitats. The drainage is an ephemeral feature that flows only in response to rainfall events and is therefore not subject US Army Corps of Engineers (USACE) jurisdiction. Implementation of Mitigation Measure BIO-3 would be required to reduce impacts to aquatic resources to a less than significant level.

Mitigation Measures

BIO-3 Regulatory Agency Permits. A “No Permit Required Letter” shall be obtained from the United States Army Corps of Engineers (USACE) prior to ground disturbing activities. A Section 401 Water Quality Certification or Waste Discharge Requirement (WDR) shall be obtained from the Regional Water Quality Control Board (RWQCB) prior to ground disturbing activities. A Section 1602 Lake and Streambed Alteration Agreement (LSAA) shall be obtained from the California Department of Fish and Wildlife (CDFW) prior to ground-disturbing activities.

d) **No Impact.** The Project Site is surrounded on all sides by residential development and is not located within an established wildlife movement corridor. The Project Site is not located within a known wildlife nursery site. Thus, no impacts to wildlife species, migratory corridors, or native wildlife nursery sites are anticipated.

e) **No Impact.** Section 9.17.030 (Landscape and Irrigation Design Standards) of the Moreno Valley Municipal Code requires that trees over 4-inches in diameter must be replaced at a ratio of 1:1 with 36-inch box trees or 3:1 for 24-inch box trees. The Project site is undeveloped and comprised of non-native grasses and two small trees. One tree is a willow tree (*Salix goodingii*) and the other is a Brazilian peppercorn tree (*Schinus molle*). The willow tree is a multi-trunked tree with diameters at breast height (DBH) of 6-inches, 8-inches, 9-inches, and 10-inches. The peppercorn tree has a DBH of 33-inches. These two trees would be removed during project development. However, the single-family homes that would be constructed as a result of the proposed Project would presumably include box trees and or planted landscape trees of a similar type and would far exceed the City’s required replacement ratios. The Project will not conflict with local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance. No impacts are anticipated.

f) **Less than Significant with Mitigation Incorporated.** The Project Site is located within the Western Riverside County MSHCP Reche Canyon/Badlands Area Plan. The Project Site is not located within an MSHCP Criteria Area or Area Plan subunit. The Project Site does not occur within a predetermined Survey Area for narrow endemic plant species, criteria area plant species, amphibian species, or mammal species. No surveys are required for these species. The Project Site occurs within a predetermined Survey Area for the burrowing owl. Although suitable burrowing owl habitat is present onsite in the ruderal vegetation communities, burrowing owls are not expected to occur in or around the Project Site due to the lack of suitable burrows. The Project Site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-

Contiguous Habitat Block. Therefore, an Urban/Wildland Interface analysis pursuant to Section 6.1.4 of the MSHCP is not required.

MSHCP Riparian/Riverine Resources

The onsite drainage contains both MSHCP riparian (0.010 ac) and riverine (0.108 ac) resources pursuant to Section 6.1.2 of the MSHCP (2004) (Attachment E-6, *Biological Resources Map* and Attachment E-8, *Current Project Site Photographs*, MIG Jurisdiction Delineation Report 2020). The Project will be required to purchase 0.118 acres of re-establishment credits at the Riverpark Mitigation Bank at a mitigation ratio of 1:1. Due to the comparatively low biological value of the current onsite drainage (overall CRAM score = 41), this purchase will result in the re-establishment of biologically equivalent or superior MSHCP riparian/riverine resources and will be mitigated to an equivalent or superior level (MIG CRAM Report, 2020 and MIG DBESP Report 2020). No vernal pool resources were observed on the Project Site. Implementation of Mitigation Measure BIO-4 would be required to reduce impacts to MSHCP riparian/riverine resources to a less than significant level.

Stephen's Kangaroo Rat Fee Area

The Project Site is located within the Stephens' kangaroo rat (SKR) HCP Fee Area which is administered by the RCHCA. Implementation of Mitigation Measure BIO-5 would be required to reduce impacts to Stephen's kangaroo rat to a less than significant level.

Mitigation Measures

BIO-4 MSHCP Riparian/Riverine Resources. All onsite MSHCP riparian (0.010 ac) and riverine (0.108 ac) resources will be impacted as a result of project implementation. In order to mitigate to an equivalent or superior level, 0.118 acres of re-establishment credits will be purchased at the Riverpark Mitigation Bank (1:1 mitigation ratio).

BIO-5 SKR Fee Area. The Project Site is located within the Stephens' kangaroo rat (SKR) HCP Fee Area which is administered by the RCHCA. The SKR Fee is established at \$500 per acre. Based on a Project site size of 20.18 acres, the applicant shall pay an SKR Fee in the amount of \$10,090.

4.5 – Cultural Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to '15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A Phase I Cultural Resources Assessment for the proposed Project was prepared by MIG, and is attached as Appendix C. The Report was compiled, and record searches and site surveys were conducted by Mr. Christopher Purtell, M.A., RPA of MIG.

a) **No Impact.** The Project site does not satisfy any of the criteria for a historic resource defined in Section 15064.5 of the State CEQA Guidelines. The site is not listed with the State Office of Historic Preservation (SHPO) or the National Register of Historic Places.^{9, 10} The Project site is vacant and there are no known historically or culturally significant resources, structures, buildings, or objects located on the Project site. Results of the records research conducted at the CHRIS-EIC indicate that no archaeological resources (prehistoric and historic) exist within the Project boundaries. There are two (2) historic trash refuse (P-33-028072 and P-33-028073) and one (1) historic structure: a concrete foundation and floor from a demolished grain milling facility (P-33-021503) located within a one-mile radius of the Study Area. However, none of these historic resources will be impacted by the proposed Project. As such, the proposed Project would not cause an adverse change in the significance of a historical resource and impacts to historic resources are not anticipated. Therefore, no impact will occur, and no mitigation is required.

b) **Less than Significant with Mitigation Incorporated.** The project site has been previously disturbed by past activities. On April 5, 2019, Mr. Purtell of MIG conducted a records search of the Study Area at the CHRIS-EIC. The records search included a review of all recorded archaeological and historical resources within a one-mile radius of the Study Area, as well as a review of cultural resource reports and historic topographic maps on file. In addition, MIG reviewed the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the California Register, the National Register, and the California State Historic Resources Inventory (HRI) listings. The purpose of the records search is to determine whether previously recorded archaeological or historical resources exist within the Study Area that require evaluation and treatment. The results also provide a basis for assessing the sensitivity of the Study Area for additional cultural resources.

According to the Phase I Cultural Resources Assessment, results of the records research conducted at the CHRIS-EIC indicate that no archaeological resources (prehistoric and historic) exist within the

Project boundaries Further, there were no archaeological resources identified during the pedestrian survey; therefore, no evaluation of archaeological resources is necessary.

Nevertheless, a review of the City of Moreno Valley's General Plan indicates that the Project site is located within a one and one-half-mile radius from the Wolfskill Ranch West Complex, approximately four and one-half miles northeast from the Wolfskill Ranch North Complex and is approximately five miles southeast of the Moreno Hills Complex. These archaeological complexes are comprised of a series of hills and drainages that stretch into Moreno Valley and are characterized as prehistoric habitation areas consisting of bedrock milling stations, cupule rocks, petroglyphs, and pictographs. Additionally, the City's General Plan has identified archaeological sites located at the Moreno School and at the intersection of Lassalle Street & Brodiaea Avenue. These archaeological sites are located approximately four and one-half miles northeast of the Project site and have been classified as rocky outcrops containing bedrock milling stations (City of Moreno Valley General Plan 2006).¹¹

Consequently, the Project Area has a moderately high sensitivity level to encounter subsurface archaeological resources during project implementation given the proven prehistoric occupation of the region, the identification of multiple surface archaeological resources within the vicinity of the Study Area and the favorable natural conditions (e.g., ephemeral drainages, natural spring, and vegetation communities) that would have attracted prehistoric inhabitants to the area. Therefore, despite the disturbances of the Project site caused by plowing/disking that may have displaced archaeological resources on the surface, it is possible that intact archaeological resources exist at depth. As a result, Mitigation Measures CUL-1 through CUL-5 have been incorporated to reduce potentially significant impacts to previously undiscovered archaeological resources that may be accidentally encountered during project implementation to a less than significant level. Mitigation Measure CUL-1 requires the applicant to retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. Mitigation Measure CUL-2 requires the developer secure agreements with the Rincon Band of Luiseño Indians, Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The Developer is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. Mitigation Measure CUL-3 requires either preservation-in-place or onsite reburial in the event that Native American cultural resources are discovered during grading. Mitigation Measure CUL-4 requires inclusion of a note on the Grading Plan stating that cessation of work within a 100-foot buffer around inadvertent discoveries will occur until the Project Archaeologist and Tribal Representatives can be contacted in order to determine the significance of the find. Mitigation Measure CUL-5 requires immediate cessation of work in the area of inadvertent discoveries, evaluation of the find, and, as appropriate, recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. With implementation of Mitigation Measures CUL-1 through CUL-5, impacts would be less than significant.

Mitigation Measures

In the event of the unanticipated discovery of archaeological or cultural resources relating to TCRs during earthmoving operations, the following mitigation measures are required to reduce potentially significant impacts to archaeological resources that are accidentally discovered during implementation of the proposed project to a less than significant level.

CUL-1 Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to Assembly Bill 52 (AB52) to address the details, timing and responsibility of all archaeological

and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in California Public Resources Code Section 21080.3.2(b)(1) of AB52. Details in the CRMP shall include:

- a. Project grading and development scheduling;
- b. The Project archeologist and the Consulting Tribes(s) as defined in CUL-1 shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training for those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;
- c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

CUL-2 Prior to the issuance of a grading permit, the Developer shall secure agreements with the Rincon Band of Luiseño Indians, Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The Developer is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.

CUL-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

- a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:

- i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.
- ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CUL-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CUL-1.

CUL-4 The City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

CUL-5 If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CUL-1 before any further work commences in the affected area.

c) **Less than Significant with Mitigation Incorporated.** Because the project site has been disturbed, no human remains or cemeteries are anticipated to be disturbed by the proposed project. Any buried human remains would have been uncovered, collected, and/or destroyed at that time of initial development of the site. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed project. Similar to the discussion regarding archaeological resources above, it is also possible to encounter buried human remains during construction. As a result, Mitigation Measure CUL-6 has been implemented to reduce potentially significant impacts to previously unknown human remains that may be unexpectedly discovered during project implementation to a less than significant level. Mitigation Measure CUL-6 requires that in the unlikely event that human remains are uncovered the contractor shall be required to halt work in the immediate area of the find and to notify the County Coroner, in accordance with Health and Safety Code § 7050.5, who must then determine whether the remains are of forensic interest. If the Coroner, with the aid of a supervising archaeologist, determines that the remains are or appear to be of a Native American, he/she shall contact the Native American Heritage Commission for further investigations and proper recovery of such remains, if necessary. Impacts would be less than significant with implementation of mitigation.

Mitigation Measure

CUL-6 If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner

determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the “most likely descendant”. The “most likely descendant” shall then make recommendations and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

4.6 – Energy

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption or energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note: This issue area was added to the State CEQA Guidelines in 2018 and was not analyzed in the 2006 General Plan EIR. As such, the analysis provided below is based on use of the California Emissions Estimator Model (CalEEMod) Version 2016.3.2, performed by MIG on September 4, 2019 (See Appendix A, Air Quality Modeling Data).

a) **Less than Significant Impact.** Implementation of the Project would increase the demand for electricity and natural gas at the project site and gasoline consumption in the region during construction and operation.

Electricity

Construction. Temporary electric power would be required for lighting and electronic equipment (e.g., computers) located in trailers used by the construction crew. However, the electricity used for such activities would be temporary and would have a negligible contribution to the project's overall energy consumption.

Operational. During operation of the Project, the single-family homes would require electricity for multiple purposes, such as: building heating and cooling, lighting, appliances, and electronics.

As described above, CalEEMod was used to estimate project emissions from energy uses. Default electricity generations in CalEEMod were used for the proposed land use and climate zone based on compliance with the 2016 Title 24 Building Code.¹ Modifications were made to the model, based on the County's GHG DRP checklist. Such measures that would reduce electricity consumption include, but are not limited to: an improved efficiency heating, ventilation, and air conditioning (HVAC) system, high efficiency lights, water efficient faucets, and water efficient irrigation systems. Based on the Project design and mitigations applied, the Project is estimated to consume approximately 543,883 kWh/yr,

¹ Based on the timing of construction, the Project would be constructed to the 2019 Title 24 CALGreen Building Code requirements, which are more efficient than the 2016 standards. Thus, the values presented reflect conservative assumptions, and likely overestimate energy that would be consumed by the Project.

with approximately 435,106 kWh/yr attributable to building electricity consumption and approximately 108,776 kWh/yr attributable to water conveyance/consumption.

Although electricity consumption would increase at the site under implementation of the Project, the building envelopes, HVAC, lighting, and other systems, would be designed to maximize energy performance. The project would be subject to statewide mandatory energy requirements as outlined in the CALGreen Code. In addition, the project would implement additional measures, as detailed in the air quality modeling data presented in Appendix A, that would further reduce electricity consumption. Electricity that would be consumed by the Project would also be subject to the cap-and-trade regulation. For these reasons, the electricity that would be consumed by the Project is not considered to be inefficient or wasteful, and impacts would be less than significant.

Natural Gas

Construction. Natural gas consumption is not anticipated during construction of the Project. Fuels used for construction would generally consists of diesel and gasoline, which are discussed in the next subsection. Any amounts of natural gas that may be consumed during Project construction would be nominal and would have a negligible contribution to the Project's overall energy consumption.

Operational. Natural gas consumption would be required during operation of the Project for various purposes, such as building heating and cooling, cooking, and natural gas automobiles.

Similar to the estimates derived for electricity consumption, CalEEMod was also used to estimate natural gas consumption associated with the Project. The demand calculations assumed the proposed single-family homes would be built to the 2016 Title 24 CALGreen efficiency requirements. Based on the Project design, the Project is estimated to consume approximately 2,019,350 kBtu/yr, as detailed in the air quality modeling data presented in Appendix A.

Although natural gas consumption would increase at the site under implementation of the Project, the building envelopes, HVAC, lighting, and other systems, would be designed to maximize energy performance. The project would be subject to statewide mandatory energy requirements as outlined in the CALGreen Code. In addition, the project would implement additional measures, as detailed in the air quality modeling data presented in Appendix A, that would further reduce natural gas consumption. Natural gas that would be consumed by the Project would also be subject to the cap-and-trade regulation. For these reasons, the natural gas that would be consumed by the Project is not considered to be inefficient or wasteful, and impacts would be less than significant.

Diesel and Gasoline Fuel

Construction. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed throughout construction of the Project. Fuel consumed by construction equipment would be the primary energy resource consumed over the course of construction, and vehicle miles traveled (VMT) associated with the transportation of construction materials (e.g., deliveries to the site) and worker trips to and from the site would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles. However, the diesel and gasoline used for construction activities would be temporary and would have a negligible contribution to the project's overall energy consumption. In addition, the project would be required to comply with CARB's Airborne Toxic Control Measures, which restricts heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary and required to conduct development activities, it would not be wasteful or inefficient, and impacts would be less than significant.

Operational. Fuel consumption associated with the Project's operational phase would primarily be attributable to residents commuting to and from the Project and the operation of large, diesel-powered trucks (e.g., semi-trucks) needed for mail deliveries to the residences. Over the lifetime of the Project, the fuel efficiency of the vehicles being used by residences and delivery services is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the Project site during operation is anticipated to decrease over time. In addition, there are numerous regulations in place that require and encourage fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and ZEVs in California. In addition, per the requirements identified in SB 375, CARB adopted a regional goal for the SCAG region of reducing per-capita GHG emissions from 2005 levels by 8% by 2020 and 19% by 2035 for light-duty passenger vehicles. Accordingly, operation of the Project is expected to decrease the amount of petroleum it consumes in the future due to advances in fuel economy.

Although the Project would increase petroleum use in the region during construction and initial operation, the use would be a small fraction of the statewide use and, due to efficiency increase, would diminish over time. As such, petroleum consumption associated with the Project would not be considered inefficient or wasteful and would result in a less-than-significant impact.

b) **Less than Significant Impact.** The Project would not conflict with or obstruct a state or local plan adopted for the purposes of increasing the amount of renewable energy or energy efficiency. The California Title 24 Building Code contains energy efficiency standards for residential buildings. These standards address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelopes (e.g., windows, doors, walls and roofs, etc.) on energy consumption. As described under Impact ENG-1, the Project would be required to comply with the 2019 Title 24 CALGreen standards, and would implement additional measures as identified in the Air Quality Modeling Data (see Appendix A). Since the Project would comply with applicable State standards and adhere to the County's energy reductions measures identified in the GHG Emissions Reduction Plan, the Project would not conflict with nor obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.

4.7 – Geology and Soils

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	--------------------------	-------------------------------------	--------------------------	--------------------------

a.i) **Less than Significant Impact.** According to the General Plan EIR, an Alquist-Priolo Special Fault Zone has been established for the San Jacinto fault.¹² The major source of potential damage due to fault rupture is from activity along the San Jacinto fault. The San Jacinto Fault Zone underlies portions of General Plan Land Use Alternatives 1, 2, and 3, planned for residential, business park, commercial, and public land uses. The General Plan EIR determined that this issue is considered a significant impact. However, each development project considered for approval by the City under the General Plan would be required to comply with seismic safety provisions of the CBC (Title 24, Part 2 of the California Code of Regulations) and have a geotechnical investigation conducted for the affected project site. The Project Geotechnical Investigation Report (See Appendix D) calculates seismic design parameters pursuant to CBC requirements and would include foundation and structural design recommendations, as needed, to reduce hazards to people and structures arising from fault rupture. With adherence to the recommendations of the Project Geotechnical Investigation Report, which are calculated pursuant to CBC seismic design requirements, impacts would be less than significant.

a.ii) **Less than Significant Impact.** The General Plan EIR notes that the Project is located in a region with several active fault lines and it was noted that the entire area is at risk for damage caused by groundshaking and seismic activity. The seismic risk in the project area is similar to other portions of Riverside County. With the increase of development and population allowed under the General Plan Alternatives, it was shown that the number of people and buildings exposed to seismic ground shaking will increase. As such, this was considered a significant impact in the General Plan EIR. However, each development project considered for approval by the City under the General Plan would be required to comply with seismic safety provisions of the CBC (Title 24, Part 2 of the California Code of Regulations) and have a geotechnical investigation conducted for the affected project site. The Project Geotechnical Investigation Report includes calculations seismic design parameters pursuant to CBC requirements and would include foundation and structural design recommendations, as needed, to reduce hazards to people and structures arising from ground shaking. With adherence to the recommendations of the Project Geotechnical Investigation Report, which are calculated pursuant to CBC seismic design requirements, impacts would be less than significant.

a.iii) **Less than Significant Impact.** As described in the General Plan EIR, the Riverside County General Plan identifies a range of liquefaction susceptibility in Moreno Valley ranging from very low with deep groundwater in the northern and eastern portions of the community to very high with shallow groundwater generally west of Perris Boulevard. The General Plan EIR notes that the area subject to high and very high liquefaction potential according to the County's mapping is largely developed, and the new General Plan policies and land uses would not affect existing development at the time of certification. Although no new residential development was expected in this area under the General Plan, new non-residential development was anticipated to occur in the vacant lands in this area. Because development would be allowed in the high susceptibility areas, this was considered a significant impact in the General Plan EIR. In light of this, the General Plan EIR notes that the City Engineer routinely requires project proponents to evaluate the potential for land settlement when conducting foundation investigations, which would partially address this potential impact. Moreover, each development project considered for approval by the City under the General Plan would be required to comply with seismic safety provisions of the CBC (Title 24, Part 2 of the California Code of Regulations) and have a geotechnical investigation conducted for the affected project site. The Project Geotechnical Investigation Reports calculates seismic design parameters pursuant to CBC requirements and would include foundation and structural design recommendations, as needed, to

reduce hazards to people and structures arising from liquefaction. With adherence to the recommendations of the Project Geotechnical Investigation Report, which are calculated pursuant to CBC seismic design requirements, impacts would be less than significant.

a.iv) **Less than Significant Impact.** The General Plan EIR notes that some of the soils that occur within the planning area are susceptible to collapse which may pose a hazard to new development. As such, this was considered a potentially significant impact. However, each development project considered for approval by the City under the General Plan would be required to comply with seismic safety provisions of the CBC (Title 24, Part 2 of the California Code of Regulations) and have a geotechnical investigation conducted for the affected project site. The geotechnical investigation would calculate seismic design parameters pursuant to CBC requirements and would include foundation and structural design recommendations, as needed, to reduce hazards to people and structures arising from landslides. With adherence to CBC seismic design requirements, impacts would be less than significant.

b) **Less than Significant Impact.** The General Plan EIR notes that some of the soils that occur within the city are susceptible to collapse which may pose a hazard to new development. As such, this was considered a potentially significant impact. However, each development project considered for approval by the City under the General Plan would be required to comply with seismic safety provisions of the CBC (Title 24, Part 2 of the California Code of Regulations) and have a geotechnical investigation conducted for the affected project site. The geotechnical investigation would calculate seismic design parameters pursuant to CBC requirements and would include foundation and structural design recommendations, as needed, to reduce hazards to people and structures arising from soil erosion and/or loss of topsoil. With adherence to CBC design requirements, impacts would be less than significant.

c) **Less than Significant Impact.** Impacts related to liquefaction and landslides are discussed above in Sections 4.6.a and 4.6.b. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to gravity and earthquake shaking combined. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e. retaining wall, slope, or channel) and to lesser extent on ground surfaces with a very gentle slope. Due to the absence of any channel within or near the subject site, and the subsurface soil conditions that are not conducive to liquefaction, the potential for lateral spread occurring on the project site is considered to be negligible. The proposed project is required to be constructed in accordance with the CBC. Compliance with existing CBC regulations would limit hazard impacts arising from unstable soils to less than significant levels.

d) **Less than Significant Impact.** The CBC requires special design considerations for foundations of structures built on soils with expansion indices greater than 20. The project is required to be constructed in accordance with the CBC. Compliance with existing CBC regulations would limit hazard impacts arising from unstable soils to less than significant levels. Impacts would be less than significant.

e) **No Impact.** The Project proposes to connect to the existing municipal sewer system. The proposed Project would connect to this system and would not require use of septic tanks. No impact will occur.

f) **Less than Significant with Mitigation Incorporated.** On April 4, 2019, Christopher Purtell of MIG commissioned a paleontological resources records search through the Vertebrate Paleontological Department of the Natural History Museum of Los Angeles County in Los Angeles, California. This institution maintains files of regional paleontological site records as well as supporting maps and documents. This records search entailed an examination of current geologic maps and known fossil

localities inside and within the general vicinity of the Project site. The objective of the records search was to determine the geological formations underlying the Study Area, whether any paleontological localities have previously been identified within the Project area or in the same or similar formations near the Project area, and the potential for excavations associated with the Project area to encounter paleontological resources. The results also provide a basis for assessing the sensitivity of the Project area for additional and buried paleontological resources. Results of the paleontological resources records search through NHMLAC indicate that no vertebrate fossil localities from the NHMLAC records have been previously recorded within the Project area or within a one-mile radius.¹³ Moreover, no paleontological resources were identified by MIG during the pedestrian survey. Additionally, a review of the City of Moreno Valley's General Plan indicate that the Study Area is located within a vicinity of low paleontological potential, based on extensive field work (City of Moreno Valley 2006).¹⁴

Moreover, no paleontological resources were identified by MIG during the pedestrian survey. The literature review and the search at the NHMLAC indicate that the Project area is situated upon younger and older Quaternary alluvial fan deposits, derived from the more elevated terrain to the north. These sedimentary deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they may be underlain by older Quaternary deposits that do contain significant vertebrate fossils at unknown depths (McLeod 2019).¹⁵ A review of the City of Moreno Valley's General Plan (see Figure 4. City of Moreno Valley, Locations Paleontologic Resources Sensitive Areas) indicates that the Study Area is located within a vicinity of low paleontological potential, based on extensive field work (City of Moreno Valley 2006).¹⁶ Consequently, the Project site has moderately low sensitivity level to encounter subsurface paleontological fossils or unique geological features during project implementation. As a result, Mitigation Measure GEO-1 through GEO-4 have been implemented to reduce potentially significant impacts to previously undiscovered paleontological resources and/or unique geological features that may be accidentally encountered during project implementation to a less than significant level. Mitigation Measure GEO-1 requires the applicant to conduct paleontological sensitivity training for construction personnel. Mitigation Measure GEO-2 requires periodic paleontological spot-checks during grading and earth-moving activities. Mitigation Measure GEO-3 requires that ground-disturbing activities be halted, and a treatment plan be implemented should paleontological resources be encountered. Mitigation Measure GEO-4 requires preparation of a report upon completion of paleontological monitoring or salvage services. With implementation of Mitigation Measure GEO-1 through GEO-4 impacts to paleontological resources will be less than significant.

Mitigation Measures

- GEO-1 Conduct Paleontological Sensitivity Training for Construction Personnel.** The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training will include a handout and will focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary.
- GEO-2 Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities.** The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below five feet to determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks will be conducted at the discretion of the qualified

paleontologist. If the qualified paleontologist determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources will be required. The applicant shall retain a qualified paleontological monitor, who will work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.

GEO-3 Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered. If paleontological resources and or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the City. Work shall be allowed to continue outside of the buffer area. The applicant and City shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.

GEO-4 Prepare Report Upon Completion of Paleontological Monitoring or Salvage Services. Upon completion of monitoring and/or salvage activities (if required by Mitigation Measures GEO-2 or GEO-3), the professional paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted to the applicant, the City, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

4.8 – Greenhouse Gas Emissions

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note: This issue area was not analyzed in the 2006 General Plan EIR. As such, the analysis provided below is based on use of the California Emissions Estimator Model (CalEEMod) Version 2016.3.2, performed by MIG on September 4, 2019 (See Appendix A, Air Quality Modeling Data).

To provide guidance to local lead agencies on determining the significance of GHG emissions in their CEQA documents, the SCAQMD convened the first GHG Significance Threshold Working Group (Working Group) meeting on April 30, 2008. To date, the Working Group has convened a total of 15 times, with the last meeting taking place on September 28, 2010. Based on the last Working Group meeting, the SCAQMD identified an interim, tiered approach for evaluating GHG emissions intent on capturing 90% of development projects where the SCAQMD is not the lead agency. The following describes the basic structure of the SCAQMD's tiered, interim GHG significance thresholds:

- A. **Tier 1** consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.
- B. **Tier 2** consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- C. **Tier 3** consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:
 - a. 3,000 MTCO₂e/yr for all land use types; or
 - b. 3,500 MTCO₂e/yr for residential; 1,400 MTCO₂e/yr for commercial; 3,000 MTCO₂e/yr for mixed use projects.
- D. **Tier 4** has three options for projects that exceed the screening values identified in Tier 3:
 - a. Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
 - b. Option 2: Early implementation of applicable AB 32 Scoping Measures
 - c. Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 MTCO₂e/yr/SP in 2020 and 4.1 MTCO₂e/yr/SP by 2035. For project-level analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 MTCO₂e/yr/SP for the 2020 and 2035 calendar years, respectively

a) **Less than Significant Impact.** Climate change is the distinct change in measures of climate for a long period of time.¹⁷ Climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. Natural changes in climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (e.g., changes in ocean circulation). Human activities can affect the atmosphere through emissions of greenhouse gases (GHG) and changes to the planet's surface. Human activities that produce GHGs are the burning of fossil fuels (coal, oil and natural gas for heating and electricity, gasoline and diesel for transportation); methane from landfill wastes and raising livestock, deforestation activities; and some agricultural practices.

Greenhouse gases differ from other emissions in that they contribute to the "greenhouse effect." The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it warms the planet by approximately 60° Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature. Greenhouse gases occur naturally and from human activities. Greenhouse gases produced by human activities include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Since 1750, it is estimated that the concentrations of carbon dioxide, methane, and nitrous oxide in the atmosphere have increased over 36 percent, 148 percent, and 18 percent, respectively, primarily due to human activity. Emissions of greenhouse gases affect the atmosphere directly by changing its chemical composition while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere.

Operational emissions associated with the proposed Project would include GHG emissions from mobile sources (transportation), energy, water use and treatment, and waste disposal. GHG emissions from electricity use are indirect GHG emissions from the energy (purchased energy) that is produced offsite. Construction activities are short term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. Because of this difference, SCAQMD recommends amortizing construction emissions over a 30-year operational lifetime. This normalizes construction emissions so that they can be grouped with operational emissions in order to generate a precise project-based GHG inventory.

Projects that exceed the 3,000 MTCO₂e per year threshold are required to either achieve a minimum 100 points per the Screening Tables or a 31% reduction over 2007 emissions levels. Consistent with CEQA guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions. GHG emissions for the proposed Project were quantified utilizing CalEEMod to determine if it could have a cumulatively considerable impact related to greenhouse gas emissions (see Appendix A, Air Quality Modeling Data), and summarized in Table 7 (Greenhouse Gas Emissions Inventory). The emissions inventory accounts for GHG emissions from construction activities, operational activities, and existing emissions. As shown in Table 7, the proposed Project will generate approximately 1,239 MTCO₂e per year, and greenhouse gas emissions associated with the proposed Project would not exceed the 3,000 MTCO₂E threshold with implementation of existing standards and regulations; therefore, impacts would be less than significant.

Table 7
Greenhouse Gas Emissions Inventory

Source	GHG Emissions (MT/YR)			
	CO2	CH4	N2O	TOTAL*
Construction				
Total	482	<1	0.00	484
30-Year Amortization	16	<1	0.00	16
Operational				
Area	15	<1	<1	15
Energy	213	<1	<1	214
Mobile	970	<1	0.00	971
Waste	0.00	0.00	0.00	0.00
Water	18	<1	<1	23
Total	1,216	<1	<1	1,223
Project Construction + Operational Total	1,232	<1	<1	1,239
Total Emissions	1,239			
Proposed SCAQMD Screening Threshold	3,000			
Exceeds Screening Threshold?	No			
Source: MIG 2019				
* MTCO2E/YR				
Note: Slight variations may occur due to rounding. Construction emissions amortized over 30 years.				

b) **Less than Significant Impact.** As shown above, the Project would not exceed the 3,000 MTCO₂E threshold, and would therefore be consistent with the County of Riverside GHG Reduction Plan. Additionally, the Project's consistency with AB 32 and Senate Bill (SB) 32 are discussed below.

AB 32 Consistency. AB 32 was adopted in 2006 and requires California to reduce its GHG emissions to 1990 levels by 2020. CARB identified reduction measures to achieve this goal as set forth in the CARB Scoping Plan. Thus, projects that are consistent with the CARB Scoping Plan are also consistent with AB 32 goal. The Project would generate GHG emissions, directly and indirectly, from a variety of sources. The CARB Scoping Plan includes strategies for implementation at the statewide level to meet the goals of AB 32. These strategies serve as statewide measures to reduce GHG emissions levels. The Project would be subject to the applicable measures established in the Scoping Plan because these measures are implemented at the state level. Therefore, the Project would not conflict or otherwise interfere with implementation of AB 32.

SB 32 Consistency. SB 32 was adopted in 2016 and requires the state to reduce statewide GHG emissions 40% below 1990 levels by 2030. SB 32 codifies the reduction target issued in Executive Order B-30-15. SB 32 builds upon the AB 32 goal of 1990 levels by 2020 and provides an interim goal to achieving Executive Order S-3-05's 2050 reduction goal of 80% below 1990 levels. The CARB 2017 Scoping Plan identified reduction measures to achieve the SB 32 GHG reduction goal. Like the previously adopted Scoping Plans, the 2017 Scoping Plan includes statewide reduction measures that are implemented at the state level. The Project would be subject to the applicable measures established in the 2017 Scoping Plan because these measures are implemented at the state level. Additionally, the 2014 Scoping Plan Update indicates "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32"; and it recognizes the potential for California to "reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050."

Moreover, the Project does not propose facilities or operations that would substantively interfere with any future County-mandated, state-mandated, or federally-mandated regulations enacted or promulgated to legally require development to assist in meeting state-adopted GHG emissions reduction targets, including those established under Executive Order S-3-05, Executive Order B-30-15, SB 32, or the 2017 Scoping Plan.

Therefore, the Project would not conflict with implementation of SB 32 or otherwise interfere with implementation of this or future goals.

4.9 – Hazards and Hazardous Materials

Would the project:

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

a) **Less than Significant Impact.** The General Plan EIR Hazards Chapter (Chapter 5.5) includes a discussion of hazardous materials, which is discussed in detail herein.¹⁸

Hazardous Materials Generators

The General Plan EIR notes that implementation of any of the three General Plan Land Use Alternatives would result in the development of new residential, commercial, and industrial uses. As a result, it was determined that more hazardous materials would be used within the planning area with implementation of the General Plan. The General Plan EIR, however, further notes that hazardous materials used and stored within the planning area are likely to be common materials associated with uses such as gasoline stations, automotive repair shops, commercial uses, and industrial uses. The General Plan Safety Element objectives, policies and implementation programs including implementation and/or compliance with the Riverside County Area Plan address the proper use, storage, collection and disposal of hazardous materials. Therefore, it was determined that continued implementation of these policies and implementation programs would avoid any significant hazardous materials impact, and no mitigation as required.

Construction of the proposed project would require the use and transport of hazardous materials such as asphalt, paints, and other solvents. Construction activities could also produce hazardous wastes associated with the use of such products. Construction of the proposed project requires ordinary construction activities and would not require a substantial or uncommon amount of hazardous materials to complete. All hazardous materials are required to be utilized and transported in accordance with their labeling pursuant to federal and state law. Routine construction practices include good housekeeping measures to prevent/contain/clean-up spills and contamination from fuels, solvents, concrete wastes and other waste materials. Similarly, operation of the proposed Project will require the use and storage of common hazardous materials associated with residential uses and household waste. The remnants of these and other products are disposed of as household hazardous waste (HHW) that includes used dead batteries, electronic wastes, and other wastes that are prohibited or discouraged from being disposed of at local landfills. Use of common household hazardous materials and their disposal does not present a substantial health risk to the community. The proposed Project would not place housing near any hazardous materials facilities. The routine use, transport, or disposal of hazardous materials is primarily associated with industrial uses which require such materials for manufacturing operations or produce hazardous wastes as by-products of production applications. The proposed Project does not propose or facilitate any activity involving significant use, routine transport, or disposal of hazardous substances. The proposed Project will be required to comply with the Riverside County Area Plan addressing the proper use, storage, collection, and disposal of hazardous materials. Therefore, with adherence to existing regulations, the proposed Project will have a less than significant impact.

Transportation of Hazardous Materials

According to the General Plan EIR, under any of the three General Plan Land Use Alternatives, more hazardous materials would be transported through the City on major roads and on the railway (adjacent to I-215). Due to the anticipated increase in generation and transport of hazardous materials within and adjacent to the City, it was anticipated that the probability of accidents and environmental contamination will increase. The transport of hazardous materials by truck and rail is regulated by the U.S. Department of Transportation (DOT). It was found that General Plan Land Use Alternative 2 would allow more business park/industrial development which may involve the use of more hazardous materials than Land Use Alternatives 1 or 3; however, the increase in hazards/hazardous materials in the City under Land Use Alternative 2 will not be significantly greater than under Land Use Alternatives 1 or 3. Therefore, it was determined that regulation by the DOT would avoid any significant impact associated with the transportation of hazardous materials as a result of implementation of the General Plan. As

such, it was determined that implementation of any of the three General Plan Land Use Alternatives would not result in a significant impact associated with the generation, use, transport or disposal of hazardous materials.

The proposed Project is a residential subdivision. Operation of the proposed Project will not result in the transportation of any hazardous materials. Therefore, impacts related to transportation of hazardous materials will not occur.

b) **Less than Significant Impact.** The General Plan EIR Hazards Chapter (Chapter 5.5) includes a discussion of leaking underground storage tanks (LUSTs), which is discussed in detail herein.

The General Plan EIR found that future development under any of the three General Plan Alternatives could lead to an increase in the number of Underground Storage Tanks (USTs) in Moreno Valley and thus, potentially more LUSTs. The Regional Water Quality Control Board (RWQCB) issues permits to operate underground storage tanks. The RWQCB is also responsible for monitoring the USTs and responding to requests to assess and remediate leaking tanks. The General Plan EIR notes that commercial and industrial land uses that propose to install USTs are required to comply with all RWQCB policies. Based on continued oversight by the RWQCB for installation and operation of USTs, the General Plan EIR determined that no significant impact would occur, and impacts would be less than significant.

According to the State Water Resources Control Board, there is a closed LUST case at the northeast corner of Krameria Avenue and Perris Boulevard adjacent to the Project site, and there is an open LUST case at the northeast corner of Perris Boulevard and Iris Avenue, approximately 0.6 miles north of the site.¹⁹ The Project would not disturb these sites. Therefore, there would be no impact related to the release of hazardous materials into the environment as a result of the proposed Project. Construction of the proposed project would require the use and transport of hazardous materials such as asphalt, paints, and other solvents. Construction activities could also produce hazardous wastes associated with the use of such products. Construction of the proposed development requires ordinary construction activities and would not require a substantial or uncommon amount of hazardous materials to complete. All hazardous materials are required to be utilized and transported in accordance with their labeling pursuant to federal and state law. Routine construction practices include good housekeeping measures to prevent/contain/clean-up spills and contamination from fuels, solvents, concrete wastes and other waste materials. Impacts would be less than significant.

With regards to project operation, the proposed residential subdivision would not involve the use of hazardous materials or generate hazardous waste that could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Project operation would involve the use of household hazardous waste and would not pose a significant risk. Impacts will be less than significant.

c) **No Impact.** March Middle School and Rainbow Ridge Elementary School are located approximately 0.55 miles north of the Project site. The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste because it is a residential use that does not include any such operations. Therefore, the Project will not 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 would occur.

d) **No Impact.** The proposed project is not located on a site listed on the state *Cortese List*, a compilation of various sites throughout the state that have been compromised due to soil or groundwater contamination from past uses.²⁰

Based upon review of the *Cortese List*, the project site is not:

- listed as a hazardous waste and substance site by the Department of Toxic Substances Control (DTSC),²¹
- listed as a leaking underground storage tank (LUFT) site by the State Water Resources Control Board (SWRCB),²²
- listed as a hazardous solid waste disposal site by the SWRCB,²³
- currently subject to a Cease and Desist Order (CDO) or a Cleanup and Abatement Order (CAO) as issued by the SWRCB,²⁴ or
- developed with a hazardous waste facility subject to corrective action by the DTSC.²⁵

e) **Less than Significant Impact.** March Air Force Base is located less than a mile to the west of the Project site; however, the Project site is not located within the Land Use Plan area for the airfield.²⁶ According to the General Plan EIR Hazards Chapter, the establishment of tall structures around airports and inappropriate uses in areas subject to air crash hazards could substantially increase the risk for loss of lives and property. As such, it was determined that land use restrictions were needed in these areas in the interest of public safety. It was also determined that such restrictions are needed to ensure the long-term viability of the airport. Existing zoning regulations and General Plan policies prohibit incompatible development in areas most susceptible to air crashes. The Project is consistent with the Residential (5 du/ac) General Plan land use designation, the Residential 5 (R5) District zoning designation, and the allowable development density and height limits permitted by those designations. Therefore, no significant aircraft hazard is associated with the proposed Project and impacts related to airport operations will be less than significant.

f) **Less than Significant Impact.** According to the General Plan EIR, implementation of any of the three General Plan Alternatives would not impair implementation of or interfere with existing or proposed emergency operations plans at the time of certification. Therefore, it was determined that the General Plan would not result in a significant impact to the City's adopted Emergency Operations Plan and no mitigation was required.

Per state Fire and Building Codes, sufficient space will have to be provided around the proposed residential buildings within the subdivision for emergency personnel and equipment access and emergency evacuation. All project elements, including landscaping, would be sited with sufficient clearance from existing and proposed structures so as not to interfere with emergency access to and evacuation from the facility. The proposed project is required to comply with the California Fire Code as adopted by the Moreno Valley Municipal Code (Chapter 8.36). Access to the site would be provided via a 35-foot wide driveway on Krameria Avenue just west of Perris Boulevard, and via the extension of the existing Kettenburg Lane on the south side of the site. Interior circulation will be provided via a roadway connecting both site access points. The Project driveways would allow emergency access and evacuation from the site, and would be constructed to California Fire Code specifications. The proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan because no permanent public street or lane closures are proposed. Construction work in the street associated with the buildings would be limited to lateral utility connections and half-width streetscape improvements would be limited to nominal potential traffic diversion. Project impacts would be less than significant.

g) **No Impact.** According to the General Plan EIR Hazards chapter, it was determined that implementation of any of the General Plan Land Use Alternatives would result in new development and the expansion adjacent to the high wildland fire hazard area, thereby resulting in a greater potential for wildland and urban fires. However, it was found that existing practices and General Plan objectives,

policies and programs would serve to avoid any significant wildland and urban fire impact, and no mitigation was required at the time of certification. It was determined that no significant wildland or urban fire impact would occur as a result of implementing any of the three General Plan Land Use Alternatives. Under Land Use Alternative 3, less residential development would be allowed in the northeastern portion of the City which would subject less people to impacts associated with wildland fires; although the number of people that would be affected under Land Use Alternatives 1 and 2 would not be significantly greater than Land Use Alternative 3. Therefore, it was determined the potential impacts associated with wildland fires are essentially the same regardless of which proposed General Plan Land Use Alternative is implemented and no impact would occur

The Project site is not located within a fire hazard zone, as identified on the latest Fire Hazard Severity Zone (FHSZ) maps prepared by the California Department of Forestry and Fire Protection (CALFIRE).²⁷ There are no wildland conditions in the urbanized area where the project site is located. Therefore, no impact will occur.

4.10 – Hydrology and Water Quality

Would the project:

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

a) **Less than Significant Impact.** According to the General Plan EIR Hydrology and Water Quality chapter, implementation of the General Plan would result in the development of new residential and non-residential uses such as business park, commercial, industrial, office and public/institutional uses.²⁸ Additionally, currently developed but under-developed parcels could also be redeveloped with more intensive uses. Based on the General Plan land use map, it was anticipated that approximately 18,800 acres of vacant land will be developed by buildout of the City under each of the alternatives. Although, each alternative would allow a different level of development to occur on the 18,880 acres of vacant land, it was anticipated at time of certification that a similar amount of this vacant land will be converted to urban, less impervious uses under each of the three alternatives. A discussion of potential construction- and operation-related water quality impacts from the proposed Project is provided below:

Construction Impacts

Three general sources of potential short-term, construction-related stormwater pollution associated with the proposed Project include: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth-moving activities which, when not controlled, may generate soil erosion via storm runoff or mechanical equipment. Construction of the proposed Project has the potential to result in indirect impacts to downstream waters through an increase in sedimentation and decrease in water quality and cumulative impacts resulting in the degradation of overall habitat quality for aquatic plant and wildlife species. All new development projects equal to one acre or more are subject to Riverside County National Pollutant Discharge Elimination System (NPDES) Permit No. CAS 618033. The proposed Project would disturb approximately 20.18 gross acres of land and, therefore, will be subject to NPDES permit requirements during construction activities. In addition, pursuant to Municipal Code Section 8.21.170, the Project shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) for the project site prior to commencement of Project construction activities. The SWPPP provides temporary measures to control discharges of sediment and other pollutants and includes methods to minimize water quality impacts and stabilize disturbed surfaces throughout the Project site during construction. In order to avoid and minimize these potential effects during construction activities, the Project developer will be required to implement following SWPPP measures:

- Appropriate sediment and erosion control best management practices (BMPs) (e.g., use of silt fencing and/or straw waddles around the perimeter of the construction zone) will be implemented to minimize surface runoff originating from the development and thereby protect water quality of downstream areas. Erosion/sediment control BMPs will be implemented during project construction, will be described in the project's SWPPP, and could include the following:
 - Scheduling
 - Soil Binders
 - Earth Dike and Drainage Swales
 - Soil Preparation-Roughening
 - Wind Erosion Control
 - Silt Fence
 - Gravel Bag Berm
 - Street Sweeping
 - Storm Drain Inlet Protection
 - Stabilized Construction Entrance/Exit
- Prior to the onset of construction activities, construction personnel will be briefed on the location of sensitive habitat and other resources that will be preserved and the importance of avoidance.

- All fueling and maintenance of vehicles and other equipment and staging areas will be at least 50 feet (15 meters) from storm drains or drainages. During refueling and maintenance of vehicles and equipment, secondary containment will be used.
- No vehicle or equipment cleaning will take place on site during construction.
- Vehicles will be checked daily and maintained in accordance with manufactures' specifications to minimize potential for leaks. Cleanup materials will be kept on-site to recover any accidental spills. Spills will be cleaned up immediately upon discovery.
- Disturbed soil areas and soil stockpiles will be covered with tarps prior to forecasted rain events.
- Waste facilities will be maintained. Waste facilities include concrete wash-out facilities, porta-potties, and hydraulic fluid containers. Waste will be removed to a proper disposal site. The dumpster will be covered at the end of each business day and prior to rain events.

With adherence to the Project-specific SWPPP, construction-related impacts with regard to violations of water quality standards or waste discharge requirements and substantial degradation of surface or ground water quality will be less than significant.

Operational Impacts

Urban runoff is typically associated with impervious surfaces, such as rooftops, streets, and other paved areas, where various types of pollutants may build up and eventually be washed into the offsite waters. Development of the proposed Project would increase impervious areas as the site currently does not consist of any impervious surfaces. The approximately 20.18-acre vacant site will be subdivided and developed with 66 single-family residential lots ranging in size from 7,212 square feet to 15,950 square feet as well as associated streetscape improvements and landscaping. Urban pollutants entering and potentially polluting the local water system would not be expected to occur as a result of the proposed Project. The proposed development would not generate hazardous wastewater that would require any special waste discharge permits. All wastewater associated with the interior plumbing systems of the single-family residences would be discharged into the local sewer system for treatment at the regional wastewater treatment plant.

A Water Quality Management Plan (WQMP) has been prepared to ensure that the project would not cause an increase in storm water runoff and would include water quality treatment prior to discharge from the site. The WQMP includes permanent BMPs and source control BMPs to protect downstream watercourses after construction. The existing site generally drains from the northeast corner to the southwest corner with portions of the flows entering into Kettenburg Lane where they continue southerly. Once developed, all private lots will drain to a public street. All street drainage from the interior streets, Tarano Lane and private lots will be directed to one of two bioretention areas to be constructed within Lots 'A' and 'B' at the southwest corner of the site. The bioretention areas consist of a 6" deep ponding area with mulch and planting, with engineered soil media below ground. Once treated in the bioretention area media, flows will enter an underdrain and will outlet to a proposed storm drain in Kettenburg Lane. This storm drain is proposed to be extended from Northern Dancer Drive. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Runoff from the Krameria Avenue frontage, adjacent parkway and landscape easement will be directed to one of three proposed bioretention swales, via curb openings. The bioretention swales will include engineered soil media below ground. Once treated in the soil media, runoff will enter an underdrain, ultimately directing flows to the existing storm drain in Krameria Avenue. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically.

The following permanent BMPs would be incorporated by the Project to protect downstream and/or offsite jurisdictional streambeds and nearby storm drain:

- Bioretention swales
- Bioretention areas

The following source pollution control measures would be incorporated by the Project developer to protect downstream and/or offsite jurisdictional streambeds and nearby storm drains:

- Activity Restrictions: CC&Rs will restrict activities to designated site purposes.
- Landscape Management: Fertilizer and pesticide use will be minimized. Landscape design shall take into consideration environmental constraints, and planting within BMP areas shall be selected to withstand periodic flooding and saturation.
- Efficient Irrigation: Landscaping will use minimal water and manually shut down during storm events. Drip irrigation will be used for all common lot and front yard landscaping, except where turf is proposed. No spray irrigation will be proposed within 2' of hardscape.
- Storm Drain Signage and Maintenance: Drainage inlets will be stenciled or otherwise have signage that indicates storm water drains to river. Drainage inlets shall be inspected monthly and cleaned out as necessary to remove accumulated sediment.

With adherence to the Project-specific WQMP, operation-related impacts with regard to violations of water quality standards or waste discharge requirements and substantial degradation of surface or ground water quality will be less than significant.

b) **Less than Significant Impact.** The General Plan EIR notes that increases in impervious surfaces would result in a reduction in the amounts of rainwater that will infiltrate the soil to the groundwater table. On the other hand, additional groundwater recharge could occur due to infiltration of irrigation water through the soil as well as infiltration of irrigation water runoff as it flows through soft-bottomed channels. As such, the General Plan EIR found that this might result in an incremental reduction in groundwater recharge rates over time. The General Plan EIR notes that the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source. However, it further notes that development allowed under the General Plan alternatives could result in an increase in the amount of industrial chemicals and urban contaminants infiltrating groundwater supplies. As increasing levels of urban contaminants, such as fertilizers and pesticides enter groundwater aquifers, it was determined that groundwater quality will decline over time. Therefore, this is considered a significant impact in the General Plan EIR. However, it was determined that implementation of General Plan EIR Mitigation Measures HW1 and HW3 would reduce this impact to a level less than significant.

If the proposed Project removes an existing groundwater recharge area or substantially reduces runoff that results in groundwater recharge such that existing wells would no longer be able to operate, a potentially significant impact could occur. The project site is located in Perris Valley Groundwater Basin (Basin). According to the Moreno Valley General Plan EIR, groundwater depths range from approximately 100 feet to 150 feet below the ground surface. Project-related grading would not reach these depths and no disturbance of groundwater is anticipated. The proposed development would increase impervious surface coverage on the site, thereby reducing the total amount of infiltration onsite. However, the project site is not utilized for groundwater recharge and, as discussed in Section 4.10 (a) above, once developed all private lots will drain to a public street. All street drainage from the interior streets, Tarano Lane and private lots will be directed to one of two bioretention areas to be constructed within Lots 'A' and 'B' at the southwest corner of the site. Additionally, runoff from the Krameria Avenue

frontage, adjacent parkway and landscape easement will be directed to one of three proposed bioretention swales, via curb openings. The bioretention areas/swales consist of a ponding area with mulch and planting, with engineered soil media below ground. Once treated in the soil media, runoff will enter an underdrain, ultimately directing flows to the existing storm drain in Krameria Avenue. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Because this site is not managed for groundwater supplies and would provide bioretention areas/swales for continued infiltration, this change in infiltration would not have a significant effect on groundwater table level. Impacts would be less than significant.

c.i) **Less than Significant Impact.** The General Plan EIR notes that development of the planned land uses under any of the three General Plan Alternatives will affect the drainage system and new development would result in greater areas of impervious surfaces (such as streets, sidewalks and parking lots). The General Plan EIR further notes that the absorption rate of impervious surfaces is less than the rate for natural lands. Instead of absorbing into the ground, water on impervious surfaces runs-off and drains into the local drainage system, potentially increasing the amount of storm water runoff. Potentially significant impacts to the existing drainage pattern of the site or area could occur if development of the Project results in substantial on- or off-site erosion or siltation. As discussed in Section 4.10 (a), a Water Quality Management Plan (WQMP) has been prepared for the proposed Project. Once developed, all private lots will drain to a public street. All street drainage from the interior streets, Tarano Lane and private lots will be directed to one of two bioretention areas to be constructed within Lots 'A' and 'B' at the southwest corner of the site. The bioretention areas consist of a 6" deep ponding area with mulch and planting, with engineered soil media below ground. Once treated in the bioretention area media, flows will enter an underdrain and will outlet to a proposed storm drain in Kettenburg Lane. This storm drain is proposed to be extended from Northern Dancer Drive. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Additionally, runoff from the Krameria Avenue frontage, adjacent parkway and landscape easement will be directed to one of three proposed bioretention swales, via curb openings. The bioretention swales will include engineered soil media below ground. Once treated in the soil media, runoff will enter an underdrain, ultimately directing flows to the existing storm drain in Krameria Avenue. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Therefore, the drainage pattern would not be substantially altered in a manner than could cause increases in erosion off-site. Erosion and siltation reduction measures would be implemented during construction. At the completion of construction, the Project would consist of impervious surfaces and would therefore not be prone to substantial erosion. No streams cross the project site; thus, the project would not alter any stream course. Impacts would be less than significant.

c.ii) **Less than Significant Impact.** The General Plan EIR determined that the volume of additional runoff generated by implementation of the General Plan alternatives could pose a potential flooding hazard during intense rainstorms. As such, it was determined that a significant impact associated with these issues could occur. However, it was determined that implementation of Mitigation Measure HW2 would reduce this impact to a level less than significant. As part of Mitigation Measure HW2, drainage facilities will be designed and constructed with sufficient capacity to safely convey additional stormwater flows and thereby ensure that no habitable structure will be placed within a 100-year floodplain as shown on the FEMA Insurance Rate Maps.

With regard to proposed Project operation, development of the proposed Project would increase the net area of impermeable surfaces on the site; therefore, increased discharges to the City's existing storm drain system would likely occur. As discussed above, all street drainage from the interior streets, Tarano Lane and private lots will be directed to one of two bioretention areas to be constructed within Lots 'A' and 'B' at the southwest corner of the site. The bioretention areas consist of a 6" deep ponding area with mulch and planting, with engineered soil media below ground. Once treated in the bioretention

area media, flows will enter an underdrain and will outlet to a proposed storm drain in Kettenburg Lane. This storm drain is proposed to be extended from Northern Dancer Drive. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Additionally, runoff from the Krameria Avenue frontage, adjacent parkway and landscape easement will be directed to one of three proposed bioretention swales, via curb openings. The bioretention swales will include engineered soil media below ground. Once treated in the soil media, runoff will enter an underdrain, ultimately directing flows to the existing storm drain in Krameria Avenue. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Therefore, the Project will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Impacts would be less than significant.

c.iii) **Less than Significant Impact.** Development of the proposed Project would increase the net area of impermeable surfaces on the site; therefore, increased discharges to the City's existing storm drain system would likely occur. As discussed above, all street drainage from the interior streets, Tarano Lane and private lots will be directed to one of two bioretention areas to be constructed within Lots 'A' and 'B' at the southwest corner of the site. The bioretention areas consist of a 6" deep ponding area with mulch and planting, with engineered soil media below ground. Once treated in the bioretention area media, flows will enter an underdrain and will outlet to a proposed storm drain in Kettenburg Lane. This storm drain is proposed to be extended from Northern Dancer Drive. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Additionally, runoff from the Krameria Avenue frontage, adjacent parkway and landscape easement will be directed to one of three proposed bioretention swales, via curb openings. The bioretention swales will include engineered soil media below ground. Once treated in the soil media, runoff will enter an underdrain, ultimately directing flows to the existing storm drain in Krameria Avenue. From here, flows continue via City of Moreno Valley Storm Drain to Perris Valley Channel and Canyon Lake as they do historically. Permits to connect to the existing storm drainage system would be obtained prior to construction. All drainage plans are subject to City review and approval. Therefore, the increase in discharges would not impact local storm drain capacity. The proposed project is not an industrial use and therefore would not result in substantial pollutant loading such that treatment control BMPs would be required to protect downstream water quality. Impacts would be less than significant.

c.iv) **No Impact.** The General Plan EIR Hazards Chapter notes that the three proposed General Plan Land Use Alternatives designate land in the planning area for various types of land uses. Open Space and Flood Plain designations are applied to some land within the 100-year flood zones, particularly in the southeastern portion of the planning area. These designations only allow natural open space, parks, and recreational facilities, prohibiting residential structures. As a result, it was determined that no permanent population will exist in those portions of the flood zone. However, areas within the 100- year flood zone are designated for other uses, including residential, commercial and industrial uses. The General Plan EIR notes that development of additional residential and business-related uses in those areas must comply with existing programs aimed to reduce flooding hazards. These programs include: 1) participation in the National Flood Insurance Program; 2) coordination with the RCFCWCD to ensure maintenance of flood control channels and completion of necessary repairs to RCFCWCD-owned facilities on an as-needed basis; and 3) maintenance of emergency procedures in accordance with Section 8589.5 of the California Government Code. As such, the General Plan EIR determined that implementation of the City's existing floodplain management programs and the policies contained in the General Plan Safety Element will avoid any significant flooding impacts and no mitigation was required. It was determined that no significant flooding impact would occur under any of the three proposed General Plan Land Use Alternatives.

According to flood maps prepared by the Federal Emergency Management Agency, the proposed Project site is not located within a 100-year flood floodplain.²⁹ No impact would occur.

d) **No Impact.** The City is not exposed to tsunami hazards due to its inland location. In addition, according to Figure 5.5-2 of the General Plan EIR, the Project site is not located in the dam inundation zones of either the Pigeon Pass Dam or the Lake Perris Dam.³⁰ As previously mentioned, the Project site is not located within a FEMA 100-year flood floodplain. No impact would result.

e) **Less than Significant Impact.** The Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs to protect all waters in the region. Development allowed by the Project would be required to adhere to requirements of the water quality control plan, including all existing regulation and permitting requirements. This would include the incorporation of best management practices (BMPs) to protect water quality during construction and operational periods.

Development of the Project would be subject to all existing water quality regulations and programs, including all applicable construction permits. Existing General Plan policies related to water quality would also be applicable to the Project. General Plan Conservation Element, Objectives 7.1 and 7.2 and their associated policies would limit potential water quality impacts to surface water and groundwater resources. General Plan Policy 7.2.2 requires all projects to comply with the discharge permit requirements of the Regional Water Quality Control Board. Implementation of these policies, in conjunction with compliance with existing regulatory programs, would ensure that water quality impacts related to the Project would be less than significant.

4.11 – Land Use and Planning

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **No Impact.** Per Section 15168 of the State CEQA Guidelines, the proposed Project represents a logical part in the chain of contemplated actions that were analyzed in the General Plan EIR. The Project is consistent with the Residential (5 du/ac) General Plan land use designation, the Residential 5 (R5) District zoning designation, and the allowable development density permitted by those designations. The proposed Project is consistent and compatible with the surrounding land uses and would not divide an established community. Access to the site would be provided via a 35-foot wide driveway on Krameria Avenue just west of Perris Boulevard, and via the extension of the existing Kettenburg Lane on the south side of the site. Interior circulation will be provided via a roadway connecting both site access points. The proposed Project does not involve construction of any roadway, flood control channel, or other structure that would physically divide any portion of the community. Therefore, no impact would occur.

b) **No Impact.** The Project is consistent with the Residential (5 du/ac) General Plan land use designation, the Residential 5 (R5) District zoning designation, and the allowable development density permitted by those designations. The proposed Project does not require amending the General Plan or zoning ordinance. In addition, the General Plan EIR Land Use chapter lists the following Plans and Policies as being adopted for the purpose of avoiding or mitigating an environmental effect: the City of Moreno Valley Municipal Code; Specific Plans; the City of Moreno Valley Redevelopment Plan; the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); the Air Installation Compatible Use Zone (AICUZ) Study; the Southern California Association of Governments (SCAG) Regional Plan; the SCAG Growth Management Plan; the Western Riverside County Association of Governments (WRCOG) Sub-Regional Comprehensive Plan; and the Riverside County General Plan. Below is a discussion of how the proposed Project relates to each of the related Plans and Policies in the Project area adopted for the purpose of avoiding or mitigating an environmental effect.

- Section 9.03.040 of the Moreno Valley Municipal Code provides general site development standards for residential uses. For the R5 District, the minimum site area is 7,200 square feet with a minimum front yard setback of 20 feet. The height limit for the R5 District is 35 feet. The Project site is 20.18 acres and the Site Plan indicates a minimum front yard setback of 20 feet for the proposed single-family units. The primary purpose of the R5 District is to provide for residential development on common sized suburban lots. This district is intended as an area for development of single-family residential and mobile home subdivisions at a maximum allowable density of five DUs per net acre. The proposed project does not conflict with the intent or implementation of this designation. Furthermore, the proposed project would maintain the

integrity of the surrounding commercial area in terms of density, use, and design. The project does not include any feature that would circumvent any mitigating policies in the Moreno Valley General Plan.

- The Project site is not located in any local Specific Plan Area as designated in the General Plan.
- The Project is not subject to the Moreno Valley Redevelopment Plan.
- As discussed in Section 4.4.f above, the Project Site is not located within an MSHCP Criteria Area or Area Plan subunit. The Project Site does not occur within a predetermined Survey Area for narrow endemic plant species, criteria area plant species, amphibian species, or mammal species. No surveys are required for these species. The Project Site occurs within a predetermined Survey Area for the burrowing owl. Although suitable burrowing owl habitat is present onsite in the ruderal vegetation communities, burrowing owls are not expected to occur in or around the Project Site due to the lack of suitable burrows. The Project Site does not occur within or adjacent to an MSHCP Core, Linkage, Constrained Linkage, or Non-Contiguous Habitat Block. Therefore, an Urban/Wildland Interface analysis pursuant to Section 6.1.4 of the MSHCP is not required.
- The Project site is not located within an AICUZ noise or safety contour for the March Air Reserve Base. Therefore, the Project will not conflict with the Plan for the airfield.
- The proposed Project is consistent with the General Plan; therefore, it would not conflict with the SCAG Regional Plan or Growth Management Plan.
- The Project would be required to comply with regional goals and objectives of the WRCOG Sub-Regional Comprehensive Plan; therefore, the Project will not conflict with this Plan.
- Moreno Valley's sphere of influence is under the jurisdiction of the County of Riverside. The Reche Canyon/ Badlands Area Plan (Area Plan) portion of the Riverside County General Plan governs land use within the sphere of influence. Development permitted under the Area Plan for the sphere of influence would be slightly less intense than that which would be allowed under any of the Moreno Valley General Plan alternatives. It is not necessary for the City and County plans for the sphere of influence to match. Riverside General Plan Policy RCBAP 7.4 requires coordination between City and County with respect to the sphere of influence. Because the City and County have coordinated on their regional planning and general planning efforts, and because the Project is consistent with the Moreno Valley General Plan, the Project will not conflict with the Riverside County General Plan.

Because the Project will not conflict with any of these Plans, the Project will not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact will occur.

4.12 – Mineral Resources

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a-b) **No Impact.** According to the General Plan EIR, implementation of General Plan Land Use Alternatives 1, 2, or 3 would result in the development of urban uses throughout the majority of the planning area, including the area along Highway 60 and Gilman Springs Road. However, it was determined that no regionally or statewide significant mineral resources are located within the planning area.³¹ Therefore, it was determined that implementation of the General Plan alternatives would not result in the loss of availability of a significant mineral resource, and it was determined that no significant impact to mineral resources would occur. Further, it was noted that both the City and the County have adopted SMARA regulations governing the extraction of mineral resources and eventual reclamation of mining operations and that continued implementation of these regulations will allow for the mining of locally-important mineral resources, as identified in the County of Riverside General Plan.

The proposed Project site is located in a completely urbanized area. There are no mineral extraction or process facilities on or near the site because there are no such facilities in the City of Moreno Valley. No mineral resources are known to exist within the vicinity. As a result, no significant impact to mineral resources will occur.

4.13 – Noise

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret. Sound pressure levels are described in logarithmic units of ratios of sound pressures to a reference pressure, squared. These units are called *bels*. In order to provide a finer description of sound, a *bel* is subdivided into ten *decibels*, abbreviated dB. To account for the range of sound that human hearing perceives, a modified scale is utilized known as the A-weighted decibel (dBA). Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces a sound pressure level of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dBA. In fact, they would combine to produce 73 dBA. This same principle can be applied to other traffic quantities as well. In other words, doubling the traffic volume on a street or the speed of the traffic will increase the traffic noise level by 3 dBA. Conversely, halving the traffic volume or speed will reduce the traffic noise level by 3 dBA. A 3 dBA change in sound is the beginning at which humans generally notice a *barely perceptible* change in sound and a 5 dBA change is generally *readily perceptible*.³²

Noise consists of pitch, loudness, and duration; therefore, a variety of methods for measuring noise have been developed. According to the California General Plan Guidelines for Noise Elements, the following are common metrics for measuring noise:³³

L_{EQ} (Equivalent Energy Noise Level): The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over given sample periods. L_{EQ} is typically computed over 1-, 8-, and 24-hour sample periods.

CNEL (Community Noise Equivalent Level): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00pm to 10:00pm and after addition of ten decibels to sound levels in the night from 10:00pm to 7:00am.

L_{DN} (Day-Night Average Level): The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of ten decibels to sound levels in the night after 10:00pm and before 7:00am.

CNEL and L_{DN} are utilized for describing ambient noise levels because they account for all noise sources over an extended period of time and account for the heightened sensitivity of people to noise during the night. L_{EQ} is better utilized for describing specific and consistent sources because of the shorter reference period.

City of Moreno Valley Municipal Code

Operational Noise Standards

Pursuant to Section 11.80.030 of the Moreno Valley Municipal Code, no person shall operate or cause to be operated a public or private motor vehicle, or combination of vehicles towed by a motor vehicle, that creates a sound exceeding the sound level limits below during daytime hours (between the hours of 8:00 AM and 10:00 PM):

- Residential – 60 dBA
- Commercial – 65 dBA

Construction Noise Standards

Pursuant to Section 8.14.040(E) of the Moreno Valley Municipal Code, any construction activities performed within the City limits shall only be performed between the hours of 7 AM and 7 PM Monday through Friday and from 8 AM to 4 PM on Saturday, excluding Sundays and Holidays unless written approval is obtained from the City Building Official or City Engineer.

a) **Less than Significant Impact with Mitigation Incorporated.** The Moreno Valley Municipal Code (Section 11.80.030) sets allowable levels for residential and commercial land uses. Exterior noise exposure for residential use is allowable up to 60 dBA and 65 dBA for commercial uses.

Construction Noise

The General Plan EIR Noise chapter notes that implementation of the Moreno Valley General Plan would result in additional development, which would generate noise during construction.³⁴ The General Plan EIR further notes that construction activity would have the potential to impact noise sensitive land uses located adjacent to construction sites. Table 5.4-1 of the General Plan EIR Noise chapter illustrates typical noise levels from operating construction equipment at a distance of 50 feet. As shown, construction equipment generates high levels of intermittent noise ranging from 70 dB(A) to 105 dB(A). Although construction activities would result in a noise impact at such locations, it was determined that this impact would be short-term and would cease upon completion of construction. It was determined that the temporary nature of the impact in conjunction with existing city regulations on hours of operation would lessen the potential of a significant impact due to construction noise. Nevertheless, it was determined that noise sensitive land use located adjacent to construction sites may be significantly impacted by future construction in the planning area as a result of groundborne noise levels and vibration, noise levels that exceed existing standards, and excessive temporary or periodic increases

in the ambient noise level. As such, Mitigation Measures N5 and N10 were incorporated to reduce these impacts to a level less than significant.

The proposed Project has the ability to significantly impact nearby noise sensitive receptors during construction. As such, General Plan EIR Mitigation Measures N5 and N10 have been incorporated by reference to ensure that impacts to nearby sensitive receptors during construction are less than significant. In addition, in order to ensure that project-specific construction noise is minimized at nearby receptors, Mitigation Measure NOI-1 has been incorporated to minimize noise associated with general construction activities. Mitigation Measure NOI-1 requires the use of engineered controls including retrofitting equipment with improved exhaust and intake muffling, disengaging equipment fans, and installation of sound panels around equipment engines to be verified by the preparation of a noise mitigation plan once specific construction programming and equipment is identified. These types of controls can feasibly achieve noise level reductions of approximately 10 dBA.^{35 36} Therefore, with implementation of Mitigation Measure NOI-1, and incorporation of General Plan EIR Mitigation Measures N5 and N10, construction noise from the proposed Project will be reduced to less-than-significant levels.

Mitigation Measure

NOI-1 The following measures are required to ensure that project-related short-term construction noise levels are reduced to less-than-significant levels. Prior to issuance of demolition permits, a noise mitigation plan verifying that compliance with the following measures would reduce construction noise to within the allowable levels of 60 dBA for residential uses. Should construction noise exceed allowable levels after implementation of the following measures, the use of sound curtains or other noise barriers shall be required. The noise mitigation plan shall identify the type and location of sound curtains or other noise barriers to be utilized to reduce construction noise to within allowable levels.

- Stationary construction noise sources such as generators or pumps must be located at least 100 feet from sensitive land uses, as feasible, or at maximum distance when necessary to complete work near sensitive land uses. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted noise monitor. Datasheets completed by the contracted construction noise monitor may be submitted to the Planning Official, or designee during routine inspections.
- Construction staging areas must be located as far from noise sensitive land uses as feasible. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted construction noise monitor, by the Planning Official or designee during routine inspections.
- Throughout construction, the contractor shall ensure all construction equipment is equipped with included noise attenuating devices and are properly maintained. This mitigation measure shall be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.
- Idling equipment must be turned off when not in use. This mitigation measure may be periodically monitored by a contracted construction noise monitor the Planning Official, or designee during routine inspections.
- Equipment must be maintained so that vehicles and their loads are secured from rattling and banging. This mitigation measure may be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.

- N5.** Construction activities shall be operated in a manner that limits noise impacts on surrounding uses to the hours between 7 AM and 7 PM Monday through Friday and between 8 AM and 4 PM on Saturday, excluding Sundays and Holidays unless written approval is obtained from the City Building Official or City Engineer (**Policy 6.5.2**).
- N10.** Building construction shall be prohibited between 7 PM and 7 AM Monday through Friday, between 4 PM and 8 AM on Saturdays, and on Sundays and Holidays unless written approval is obtained from the City Building Official or City Engineer (**Policy 6.3.6**).

Operational Noise

The General Plan EIR notes that the three General Plan Alternatives would each allow new development within the planning area and that such development would generate additional traffic that will increase noise levels along roadways. It was determined that with buildout of the General Plan under any of the three Alternatives would subject certain portion of the City to noise levels exceeding the City's noise standards. This was determined to be a significant impact because implementation of the General Plan could result in a permanent increase in ambient noise levels above levels existing without the project, and these levels could exceed established standards along some roadway corridors. As such, the General Plan EIR determined that implementation of General Plan EIR Mitigation Measures N1, N7 and N9 would reduce these impacts associated with vehicular noise to a level less than significant.

According to the General Plan EIR Noise chapter (Figure 5.4-2) the City anticipates noise level along Krameria Avenue and Perris Boulevard at buildout to be 60 CNEL and 70 CNEL respectively. The proposed Project represents a logical part in the chain of contemplated actions that were analyzed in the General Plan EIR. Development of the proposed Project was anticipated at the time of adoption of the General Plan and certification of the General Plan EIR. Therefore, General Plan EIR Mitigation Measures N1, N7 and N9 have been incorporated by reference to ensure the proposed Project will not generate 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. With incorporation of General Plan EIR Mitigation Measures N1, N7 and N9, the proposed Project will have a less than significant impact.

Mitigation Measures

- N1.** The following noise control measures shall be applied to new single-family dwellings exposed to noise along Perris Boulevard:
- Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.
 - Install double-paned or similar sound rated windows.
 - Provide sound insulating exterior walls and roofing systems.
 - Locate and/or design attic vents to minimize sound propagation into each home.
 - Provide forced-air ventilation systems.
 - Place dwellings as far as practical from the noise source.
- N7.** The following uses shall require mitigation to reduce noise exposure where current or future exterior noise levels exceed 20 CNEL above the desired interior noise level (**Policy 6.3.1**):
- New single-family and multiple-family residential buildings shall be insulated to achieve an interior noise level of 45 CNEL or less. Such buildings shall include sound-insulating

- windows, walls, roofs and ventilation systems. Sound barriers shall also be installed (e.g. masonry walls or walls with berms) between single-family residences and major roadways.
- b. New libraries, hospitals and extended medical care facilities, places of worship and office uses shall be insulated to achieve interior noise levels of 50 CNEL or less.
- c. New schools shall be insulated to achieve interior noise levels of 45 CNEL or less.

b) **Less than Significant Impact.** Vibration is the movement of mass over time. It is described in terms of frequency and amplitude and unlike sound; there is no standard way of measuring and reporting amplitude. Vibration can be described in units of velocity (inches per second) or discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are generally discussed in terms of peak particle velocity (PPV) that describes particle movement over time (in terms of physical displacement of mass). For purposes of this analysis, PPV will be used to describe all vibration for ease of reading and comparison. Vibration can impact people, structures, and sensitive equipment.³⁷ The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments such as electron microscopes. Common sources of vibration within communities include construction activities and railroads. Operation of the proposed project does not include uses that cause vibration.

Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used. The construction of the proposed Project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. According to the Caltrans vibration manual, large bulldozers, vibratory rollers (used to compact earth), and loaded trucks utilized during grading activities can produce vibration, and depending on the level of vibration, could cause annoyance at uses within the project vicinity or damage structures. Caltrans has developed a screening tool to determine if vibration from construction equipment is substantial enough to impact surrounding uses. The Caltrans vibration manual establishes thresholds for vibration impacts on buildings and humans. These thresholds are summarized in Tables 8 (Vibration Damage Potential Threshold Criteria) and 9 (Vibration Annoyance Potential Threshold Criteria).

Table 8
Vibration Damage Potential Threshold Criteria

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
<i>Source: Caltrans 2013</i>		

Table 9
Vibration Annoyance Potential Threshold Criteria

Human Response	PPV Threshold (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10

Severely perceptible	2.00	0.40
Source: Caltrans 2013		

Construction of the project would not require rock blasting, or pile driving, but could require use a vibratory roller, small bulldozer, loaded trucks, and jackhammer. Construction activities that use vibratory rollers and bulldozers are repetitive sources of vibration; therefore, the *continuous* threshold is used. Residential uses adjacent to the Project site are located to the south (50 feet) and west (75 feet). The *historic and some older buildings* threshold is used. Based on the threshold criteria summarized in Tables 8 and 9, vibration from use of heavy construction equipment for the proposed Project would be below the thresholds to cause damage to nearby structures at the receptors shown in Table 10 (Construction Vibration Impacts). Sensitive receptors to the west will experience *barely perceptible* vibration from use of small bulldozers, loaded trucks, and jackhammers, while experiencing *distinctly perceptible* vibration from vibratory rollers. Sensitive receptors to the south will experience *barely perceptible* vibration from use of jackhammers, while experiencing *distinctly perceptible* vibration from vibratory rollers, small bulldozers, and loaded trucks. While nearby receptors will experience distinctly perceptible vibration during construction activities, this vibration will be periodic in nature and will only occur when construction equipment is at the edge of the site, immediately adjacent to the receptors. Furthermore, Pursuant to Section 11.80.030(D)(7), construction work conducted between the hours of 8:00 PM and 7:00 AM is prohibited. Therefore, with adherence to permitted construction hours, the Project would not result in excessive, *strongly perceptible* vibration. Impacts will be less than significant.

Table 10
Construction Vibration Impacts

Receptors	Equipment	PPVref	Distance (feet)	PPV
1 – Single-Family Residence (S)	Vibratory Roller	0.21	50	0.0853
2 – Single-Family Residence (W)	Vibratory Roller	0.21	75	0.0503
1 – Single-Family Residence (S)	Small Bulldozer	0.003	50	0.0483
2 – Single-Family Residence (W)	Small Bulldozer	0.003	75	0.0213
1 – Single-Family Residence (S)	Loaded Truck	0.076	50	0.0413
2 – Single-Family Residence (W)	Loaded Truck	0.076	75	0.0182
1 – Single-Family Residence (S)	Jackhammer	0.035	50	0.0190
2 – Single-Family Residence (W)	Jackhammer	0.035	75	0.0084
Source: MIG 2019				

With regard to long-term operational impacts, activities associated with the project would not result in any excessive vibration-related impacts to adjacent or on-site properties.

c) **No Impact.** The Project site is not located within two miles of a public or private use airport or heliport.³⁸ However, the site is located less than a mile from March Air Reserve Base. A very small portion of the southwestern Moreno Valley falls within the 75 CNEL noise contour impact area, but this area does not include the Project site. Additionally, small portions of the southwestern and western City fall within the 70 CNEL, 65 CNEL, and 60 CNEL noise contour impact areas. These portions of the City do not include the proposed Project site, which is located outside the 60 CNEL noise contour impact area. Therefore, no impacts will occur.

4.14 – Population and Housing

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **No Impact.** The General Plan EIR Population and Housing chapter notes that implementation of General Plan Land Use Alternative 1, 2, or 3 would allow an increase of dwelling units and population within the planning area.³⁹ The following summarizes the expected population and dwelling units for the buildout of General Plan Land Use Alternatives 1, 2, and 3, as well as the resulting increase from existing conditions, as shown in the General Plan EIR:

- **Alternative 1** – 279,697 persons or 76,420 households (82% increase)
- **Alternative 2** – 304,966 persons or 83,324 households (98% increase)
- **Alternative-3** – 302,785 persons or 82,728 households (97% increase)

The General Plan EIR notes that new residents will locate to the planning area. It was further noted that the actual rate of development that may occur pursuant to General Plan Land Use Alternatives 1, 2, or 3 will depend on market conditions and other factors, such as availability of infrastructure or environmental constraints. It was determined that the rate of population and housing growth resulting from the implementation of General Plan Land Use Alternatives 1, 2, or 3 would not differ substantially from each other or from recently experienced growth rates. Therefore, it was determined that amendment of the General Plan could accommodate population growth, but would not induce growth and no significant impact was anticipated at the time of certification.

The proposed Project represents a logical part in the chain of contemplated actions that were analyzed in the General Plan EIR. The Project is consistent with the Residential (5 du/ac) General Plan land use designation, the Residential 5 (R5) District zoning designation, and the allowable development density permitted by those designations. As such, no impact will occur as a result of the proposed Project.

b) **No Impact.** The Project site is vacant and does not contain residential uses or residents. The proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impact will occur.

4.15 – Public Services

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The General Plan EIR Public Services chapter notes that the City did a development impact fee study (1999) that concluded that the existing Police Building and the planned expansion of the facility would serve the needs of the City through buildout.⁴⁰ It was noted that each new development is assessed a fee to cover its fair share of the cost of the expanded facility. The City imposes development impact fees on development projects to lessen the impact to public services, infrastructure, and facilities.

a) **Less than Significant Impact.** The Riverside County Fire Department provides fire protection, fire prevention, and emergency medical aid to the City of Moreno Valley. The Fire Prevention and Administration Bureau is located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City of Moreno Valley's Civic Center. The fire station located nearest to the project site is Moreno Valley Station #91 (16110 Lasselle Street), located approximately 1.3 miles northeast of the project site. According to the General Plan EIR, the Department sets a goal to arrive on the scene of emergencies within five minutes of notification, 90 percent of the time.

According to the General Plan EIR, a 1999 impact fee study concluded that Station 2 and Station 58 would need to be replaced and three new stations would be needed through buildout of the City. Since the preparation of the 1999 impact fee study, Station 2 has been relocated to its current Hemlock Avenue location and one new station (College Park) has been constructed. Each new development, including the proposed Project, shall be assessed a fee to contribute to its fair share of the cost of new fire facilities. The proposed Project would not have a significant impact on fire response times because the Project is located within the existing service area. No new or expanded fire protection facilities would be required as a result of this Project. Furthermore, the proposed Project does not propose to use substantially hazardous materials or engage in hazardous activities that would require new or modified fire protection equipment to meet potential emergency demand. Impacts related to expansion of fire protection services would be less than significant with payment of development impact fees.

b) Less than Significant Impact. The City of Moreno Valley contracts with the Riverside County Sheriff's Department to staff the Moreno Valley Police Department (MVPD). The Department is located in the Public Safety Building at 22850 Calle San Juan de Los Lagos in the City of Moreno Valley's Civic Center. The City is divided into four Zones with police officers assigned to a specific one to improve response times. Each Zone is comprised of a team that consist of one Zone Commander, one Zone Supervisor, and one Zone Coordinator. According to the General Plan EIR Public Services chapter, Safety Element Objective 6.8 strives for police staffing of at least 1 officer per 1,000 residents, as feasible given budget constraints. Objective 6.9 and the associated policies encourage neighborhood watch programs, require security lighting in new developments and require defensible space concepts to be incorporated in the design of new developments. The MVPD does not have established response time standards. The Department's aim is to provide service as fast as possible under all circumstances depending on availability of officers in the field and type of calls for service on hand. The MVPD's objective is to respond within six minutes or less for Priority 1 calls. The MVPD prepares a quarterly report and reviews calls for service and response times to ensure the department is deployed efficiently and adequately. The General Plan EIR notes that implementation of any of the General Plan Land Use Alternatives will result in increased population and new development. With the increase in population and new development, additional police services, and expanded facilities will be required to provide acceptable service levels. The specific environmental impact of expanding the police station cannot be determined at this level of analysis; however, development and operation of public facilities, such as a police station, may result in potentially significant environmental impacts that are addressed by various City policies and mitigation measures included in other sections of the General Plan EIR.

The proposed Project would not result in any unique or more extensive crime problems that cannot be handled with the existing level of police resources. The proposed Project is located in a built environment within the MVPD service area. No new or expanded police facilities would need to be constructed as a result of this project. Furthermore, the 1999 development fee impact study concluded that the existing police building, and the planned expansion of the facility would serve the needs of the City through buildout. All new development, including the proposed Project, would be subject to pay development impact fees to cover its fair share of the cost for facility expansion. Impacts related to expansion of police protection services would be less than significant.

c) Less than Significant Impact. The proposed Project would result in potential for households with school-age children located in this development. Each new development, including the proposed Project, shall be assessed a fee to contribute to its fair share of the cost of new school facilities. Therefore, no new or expanded school facilities would need to be constructed as a result of this Project. All new development, including the proposed Project, would be subject to pay development impact fees to cover its fair share of the cost for facility expansion. Impacts related to expansion of school services would be less than significant with payment of development fees.

d) Less than Significant Impact. Demand for park and recreational facilities are generally the direct result of residential development. The proposed Project consists of subdivision into 66 single-family lots, which would result in the potential for more households with children and adults who want to use parks and recreation facilities. Development of the project, therefore, would have the potential to increase demand on local park facilities. However, all new development, including the proposed Project, would be subject to pay Quimby fees to cover its fair share of the cost for park facility expansion. Impacts related to expansion of parks and recreation facilities would be less than significant with payment of Quimby fees.

e) Less than Significant Impact. The Project could result in an increase in residents that would generate additional demand for public facilities such as libraries or hospitals. However, all new development, including the proposed Project, would be subject to pay development impact fees to cover

its fair share of the cost for facility expansion. Impacts related to expansion of library facilities would be less than significant with payment of development fees.

4.16 – Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **Less than Significant Impact.** Demand for park and recreational facilities are generally the direct result of residential development. The proposed Project consists of subdivision into 66 single-family lots, which would result in the potential for more households with children and adults who want to use parks and recreation facilities. Development of the project, therefore, would have the potential to increase use of local park facilities. However, all new development, including the proposed Project, would be subject to pay development impact fees to cover its fair share of the cost for facility expansion and maintenance. Impacts related to deterioration of parks and recreation facilities would be less than significant with payment of development fees.

b) **Less than Significant Impact.** The Project does not include recreational facilities or require the construction or expansion of recreational facilities. The proposed Project consists of subdivision into 66 single-family lots, which would result in the potential for more households with children and adults who want to use parks and recreation facilities. As previously mentioned, all new development, including the proposed Project, would be subject to pay development impact fees to cover its fair share of the cost for facility expansion and maintenance. Therefore, there would be no adverse physical effect on the environment caused by expansion or construction of outdoor recreational facilities. Impacts will be less than significant.

4.17 – Transportation

Would the project:

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

a) **Less than Significant Impact.** To determine potential impacts of the City of Moreno Valley General Plan, a Traffic Study was completed which evaluated future traffic volumes that would be generated from the three land use alternatives. In addition to the three land use alternatives, the Traffic Study also evaluated three additional circulation alternatives. Based on these evaluations, the preferred circulation system was selected, assuming development in accordance with Land Use Alternative 2. This preferred circulation system is promulgated through the Circulation Element of the General Plan. According to the General Plan EIR Transportation chapter, it was determined that regardless of implementation of Circulation Plan changes, certain roadway segments within the City may experience V/C ratios that exceed 1.0 as a result of buildout.⁴¹ These roadways would experience traffic volumes that exceed their acceptable LOS of “C” or “D.” This was determined to be a significant impact and Mitigation Measure TR1, which required the City to conduct studies of specified arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan build-out, was implemented to reduce the impact. However, even with incorporation of Mitigation Measure TR1, it was determined that the impact to local roadway segments would remain significant and unavoidable as a result of buildout of the Plan.

The proposed project is consistent with the General Plan and will be developed consistent with the Residential-5 (5/acre) General Plan Designation and the land uses analyzed by the 2006 General Plan Update. The proposed Project is also below the lot-count threshold in the City’s Traffic Impact Analysis (TIA) Guidelines. Therefore, a traffic impact study was not required for the proposed Project since the proposed number and type of dwelling units are the same as those envisioned in the General Plan and are below the thresholds in the TIA Guidelines requiring a study to be prepared. According to the Institute of Traffic Engineers (ITE) Trip Generation Handbook 10th Edition, Single-Family homes are estimated to generate ten daily trips per dwelling unit. According to the Moreno Valley General Plan Update EIR

(Figure 5.2-5), the design capacity in the year 200 for Perris Boulevard was 20,200 ADT and the design capacity of Krameria Avenue as 2,700 ADT. As of 2017, City traffic counts show approximately 28,000 ADT for Perris Boulevard and approximately 9,900 ADT for Krameria Avenue in the vicinity of the Project.⁴² The proposed Project would generate approximately 660 daily trips. According to the CalEEMod output (Appendix A), the proposed Project will generate approximately 630 weekday trips. Both these amounts of daily trips are within the current design capacity for both Perris Boulevard and Krameria Avenue and considered background growth as envisioned in the City's General Plan. Since the potential impacts of the project are the same as those evaluated in the 2006 General Plan EIR and the EIR found the 2006 General Plan would result in significant, adverse and unavoidable impacts, the impacts of this project would be no greater than those previously analyzed. Therefore, project-specific impacts would be less than significant.

b) **Less than Significant Impact.** CEQA Guidelines Section 15064.3 subdivision (b) has been included in the 2018 CEQA Guidelines as part of the implementation of SB 743 which requires local jurisdictions to use Vehicle Miles Travelled (VMT) instead of Level of Service (LOS) methodologies for the purpose of determining the significance of traffic impacts under CEQA. Also, as part of the implementation of SB 743 local jurisdiction are given until July 1, 2020 to develop and implement thresholds of significance criteria and methodologies for evaluating VMT under the new SB 743 requirements. Therefore, impacts with respect to CEQA Guidelines Section 15064.3(b) are less than significant.

c) **No Impact.** A significant impact would occur if the proposed Project substantially increased an existing hazardous design feature or introduced incompatible uses to the existing traffic pattern. Access to the single-family homes would be provided via a 36-foot wide local street connecting to Krameria Avenue just west of Perris Boulevard, and via the extension of the existing Kettenburg Lane on the south side of the site. Interior circulation will be provided via a roadway connecting both site access points. The design of the proposed Project would comply with all applicable City regulations. Furthermore, the proposed Project does not involve changes in the alignment of any local roadway and the proposed Project is consistent with existing residential uses adjacent to the Project site. The proposed Project would not result in a traffic safety hazard due to any design features. No impact would occur.

d) **Less than Significant Impact.** A significant impact would occur if the design of the proposed Project would not satisfy emergency access requirements of the Riverside County Fire Department or in any other way threaten the ability of emergency vehicles to access and serve the Project site or adjacent uses. The proposed Project would not result in inadequate emergency access. As discussed above, to the site would be provided via a 35-foot wide driveway on Krameria Avenue just west of Perris Boulevard, and via the extension of the existing Kettenburg Lane on the south side of the site. Interior circulation will be provided via a roadway connecting both site access points. The driveway width is sufficient to provide access to fire and emergency vehicles and is consistent with the California Fire Code requiring a minimum of 20 feet. All access features are subject to and must satisfy the City of Moreno Valley design requirements, including the Fire Department's requirements. This Project would therefore not result in adverse impacts with regard to emergency access.

4.18 – Tribal Cultural Resources

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 Cultural Native American tribe, and that is:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a-b) **Less than Significant Impact with Mitigation Incorporated.** Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change to a defined Tribal Cultural Resources (TCR) may result in a significant effect on the environment. AB 52 requires tribes interested in development projects within a traditionally and culturally affiliated geographic area to notify a lead agency of such interest and to request notification of future projects subject to CEQA prior to determining if a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. The lead agency is then required to notify the tribe within 14 days of deeming a development application subject to CEQA complete to notify the requesting tribe as an invitation to consult on the project. AB 52 identifies examples of mitigation measures that will avoid or minimize impacts to TCR. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of intent to adopt a negative declaration/mitigated negative declaration circulated on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

As discussed in Section 4.4 above, the results of the record search indicate that there are no cultural resource studies/reports previously conducted within proposed Study Area and there are twelve (12) cultural studies/reports that have been previously conducted within a one-mile radius of the Study Area. These studies were performed for four (4) cultural resource assessments, two (2) cell tower assessments, one (1) pipeline route evaluation, and one (1) school construction project, one (1) warehouse construction, one (1) commercial building project, one (1) historic site evaluation, and one

(1) archaeological construction monitoring project. These studies were conducted between 1983 and 2017. The NAHC SLF records search results (received April 15, 2019) revealed that no known “Native American cultural resources” in the SLF database are within the project site or within a one-mile radius of the Study Area.

As per NAHC suggested procedures, follow-up letters were sent via first class mail on April 16, 2019 to the 10 Native American individuals and organizations identified by the NAHC as being affiliated with the vicinity of the Project. The letters requested any additional information they may have about Native American cultural resources that may be affected by the proposed project. As of May 21, 2019, MIG has received three (3) tribal responses from the Agua Caliente Band of Cahuilla Indians on April 24, 2019, from the Morongo Band of Indians on May 3, 2019, and from the Augustine Band of Cahuilla Indians. The Agua Caliente Band of Cahuilla Indians deferred their comments to the Morongo Band of Indians and to the Pechanga Band of Luiseño Indians. The Morongo Band of Indians stated that the Tribe had no additional information to offer at the time and may provide other information to the lead agency during AB 52 Consultations. The Augustine Band of Cahuilla Indians stated that the Tribe was unaware of specific cultural resources that may be affected by the proposed Project. As of September 5, 2019, MIG had received no other responses from the Native American community concerning the proposed project. As a result, formal AB 52 Consultation has occurred with the following tribes: Rincon Band of Luiseño Indians, Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians.

As previously discussed, the results of the records research compiled from the CHRIS-EIC, a Sacred Lands File Search commissioned through the NAHC, and a pedestrian field survey failed to indicate known TCR within the Study Area as specified in PRC Section 210741, 5020.1(k), or 5024.1. However, despite the disturbances of the Study Area that may have displaced or submerged archaeological resources relating to TCRs on the surface, it is possible that intact tribal cultural resources exist at depth given the proven prehistoric occupation of the region and the favorable natural conditions that would have attracted prehistoric inhabitants to the area. As a result, Mitigation Measures CUL-1 through CUL-5, from the Cultural Resources chapter of this IS/MND, have been incorporated to reduce potentially significant impacts to previously undiscovered archaeological resources that may be accidentally encountered during project implementation to a less than significant level. With implementation of Mitigation Measures CUL-1 through CUL-5, impacts would be less than significant.

Because the project site has been disturbed, no human remains or cemeteries are anticipated to be disturbed by the proposed project. Any buried human remains would have been uncovered, collected, and/or destroyed at that time of initial development of the site. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed project. Similar to the discussion regarding archaeological resources above, it is also possible to encounter buried human remains during construction. As a result, Mitigation Measure CUL-6 has been implemented to reduce potentially significant impacts to previously unknown human remains that may be unexpectedly discovered during project implementation to a less than significant level. Mitigation Measure CUL-6 requires that in the unlikely event that human remains are uncovered the contractor shall be required to halt work in the immediate area of the find and to notify the County Coroner, in accordance with Health and Safety Code § 7050.5, who must then determine whether the remains are of forensic interest. If the Coroner, with the aid of a supervising archaeologist, determines that the remains are or appear to be of a Native American, he/she shall contact the Native American Heritage Commission for further investigations and proper recovery of such remains, if necessary. Impacts would be less than significant with implementation of mitigation.

4.19 – Utilities and Service Systems

Would the project:

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

a) **Less than Significant Impact.** The Project would require water, wastewater collection and treatment, storm water drainage, electrical power, natural gas, and telecommunication facilities. An analysis of impacts is provided below.

Water

The Project site would be serviced by existing water service lines along Krameria Avenue and Kettenburg Lane. Thus, lateral connections to existing water lines would be required but the Project

would not result in a need for expanded or new water facilities. Therefore, the Project would have a less than significant impact.

Wastewater

The proposed project could affect Regional Water Quality Control Board treatment standards by increasing wastewater production such that expansion of existing facilities or construction of new facilities would be required. Exceeding the RWQCB treatment standards could result in contamination of surface or groundwater with pollutants such as pathogens and nitrates.

New development in the City is required to install wastewater infrastructure concurrent with project development. Wastewater service in the City is provided by the Eastern Municipal Water District (EMWD) for maintenance of local sewer lines that collect wastewater generated in the City. All wastewater generated by the interior plumbing system of the proposed Project would be discharged into the local sewer main and conveyed for treatment at the Moreno Valley Regional Water Reclamation Facility (MVRWRF). The MVRWRF has the capacity to treat 16 million gallons of wastewater per day (mgd) and the capacity to expand to 41 mgd. As of October 2016, the typical daily flow at MVRWRF is 10.6 mgd with the ability to divert approximately two mgd to the Perris Facility.⁴³ Wastewater flows associated with the proposed Project would consist of the same kinds of substances typically generated by residential uses and no modifications to any existing wastewater treatment systems or construction of any new ones would be needed to treat this Project's wastewater. Water use for the Project was estimated using CalEEMod default outputs. Interior water use is estimated at 11,781 gpd and outdoor water use for landscaping is estimated at 7,427 gpd. Wastewater is typically estimated to be 80 percent of total water use. Therefore, estimated wastewater generation from interior demand and outdoor irrigation demand is 15,366 gpd.

Total estimated wastewater generation to be conveyed to MVRWRF is estimated at 15,366 gpd. This volume is within the remaining capacity of the MVRWRF's 16 mgd total treatment capacity. This project would thus have a less-than-significant impact on the ability of the MVRWRF to operate within its established wastewater treatment requirements, which are enforced via the facility's NPDES permit authorized by the Santa Ana Regional Water Quality Control Board (SARWQCB). Therefore, the project would have a less than significant impact related to wastewater treatment requirements of the SARWQCB.

Stormwater

The Project would subdivide the existing 20.18 acres of vacant land into 66 single-family lots with associated streetscape improvements and landscaping. The proposed Project includes an infiltration basin at the southwest portion of the site. On-site storm drainage facilities will collect stormwater to be conveyed to the bioretention area for treatment, and then pumped as surface flows onto Tarano Lane. Although the amount of impervious surfaces would be greater than existing conditions, runoff would be captured on site and conveyed through a proposed on-site storm drainage system which includes water treatment at an on-site bioretention area prior to being discharged as surface flows onto Tarano Lane. The proposed Project would also construct onsite and offsite improvements consisting of landscaping, and curb and gutter and street improvements which would increase impermeable surfaces. As discussed in the Hydrology section, the proposed Project would not generate any increased runoff from the site that would require construction of new storm drainage facilities. A NPDES permit would be required for the proposed Project and, pursuant to Municipal Code Section 8.21.170, all construction projects shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP). Best Management Practices (BMPs) that include drainage controls such as detention ponds, dikes, filter berms, and downdrains to prevent runoff, and utilizing plastic covering to prevent erosion shall also be

applied. Implementation of BMPs would reduce pollutants in stormwater and urban runoff from the project site. The proposed storm drainage system and BMPs must be designed to the satisfaction of the City's Public Works Director and in conformance with all applicable permits and regulations. The Project applicant/developer would be required to provide all necessary on-site infrastructure. With adherence to Federal, State, and local regulations the Project would have a less than significant impact on requiring the construction of new facilities or expansion of existing storm drainage facilities.

Electric Power

The project site would be serviced by Moreno Valley Electrical Utility (MVU). Above ground power lines, stub poles and associated hardware run along Krameria Avenue and Perris Boulevard servicing the Project site. The Project site would connect to the existing power grid at a manhole on Perris Boulevard along the Project frontage. New electrical lines to the Project site would be installed via undergrounded lines and the existing above ground poles would be removed. Although the Project would require new electrical line tie-ins for service, it would not result in the need for new electrical substations or electrical generating facilities. MVU conditions of approval would apply to the proposed Project. Therefore, the Project would have a less than significant impact.

Natural Gas

The Southern California Gas Company (Gas Company) would provide natural gas services to the Project site. The majority of the gas supply is transported via transmission pipelines owned by private companies. The Project site would utilize the existing Gas Company distribution grid to service the Project. All new connections and service installations would be reviewed and approved by the Gas Company and the Riverside County Public Works Department. Although the Project would require new natural gas service connections, it would not result in the need for new natural gas supplies or infrastructure. Therefore, the Project would have a less than significant impact.

Telecommunication Facilities

The Project site is supported by telecommunication services for a variety of providers. Spectrum Communication provides residential and business services to the Project area. Fiber optic cables and high-speed connection services from wireless providers such as Spectrum Communications are available to service the Project site. The Project site would be required to comply with all Federal, State and local regulations for installation and wiring of telecommunications to the Project. With adherence to existing Riverside County Electrical, Building and Safety code requirements, the Project would have a less than significant impact.

b) Less than Significant Impact. The Eastern Municipal Water District (EMWD) would supply water to the project. Water is imported via the California Aqueduct from northern and central California, which is managed by the Metropolitan Water District of Southern California (MWD). A secondary source of imported water is provided by the Colorado Rivers Aqueduct. Water Code § 10910-10915 require the preparation of a water supply assessment (WSA) demonstrating sufficient water supplies for any subdivision that involves the construction of more than 500 dwelling units, or the equivalent thereof. As the project is below the established thresholds, no WSA is required.

According to the 2015 Urban Water Management Plan for EMWD, EMWD will continue to rely on imported water from MWD as the main source of supply. The water used within the EMWD service area as of 2015 was approximately 147,300 AFY and is expected to increase to 268,200 AFY (during a normal year) by the year 2040, an increase of 120,900 AFY.⁴⁴ Based on the CalEEMod assumptions, the proposed Project's estimated water demand is approximately 21.5 AFY, within the estimated

increase in water demand. According to the 2015 Urban Water Management Plan for EMWD, there is sufficient supply to accommodate demand under normal and single- and multiple-dry year conditions utilizing imported water.⁴⁵ Local supplies would supplement imported supplies and provide additional supply reliability. Local supplies include groundwater pumped from the San Jacinto groundwater Basin, desalinated groundwater, and recycled water.

The UWMP is based on area population projections as provided by SCAG. As discussed in Section 4.14, the proposed Project is consistent with SCAG projections for the service area. As the estimated increase in water use is within the anticipated increase in the UWMP and the Project is consistent with regional population projections, impacts would be less than significant.

Connections to local water mains would involve temporary and less than significant construction impacts that would occur in conjunction with other on-site improvements. The project site is located within the existing service area of EMWD and is surrounded by existing development that is currently connected to existing EMWD water lines. No additional improvements are needed to water lines or facilities to serve the proposed Project. Standard connection fees would address any incremental impacts of the proposed Project. Therefore, the proposed Project will have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years. Impacts will be less than significant.

c) **Less than Significant Impact.** Potentially significant impacts could occur as a result of this Project if it results 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. As discussed above, wastewater generated at the Project site is treated at the Moreno Valley Regional Water Reclamation Facility (MVRWRF). The proposed Project is estimated to have a wastewater generation of approximately 15,366 gpd. This generation is well within the existing remaining treatment capacity of the MVRWRF. Therefore, the expansion of the existing facility would not be required, and impacts will be less than significant.

d) **Less than Significant Impact.** Significant impacts could occur if the proposed project would exceed the existing permitted landfill capacity or violates federal, state, and local statutes and regulations. Compliance with County waste reduction programs and policies would reduce the volume of solid waste entering landfills. Individual development projects within the County would be required to comply with applicable state and local regulations, thus reducing the amount of landfill waste by at least 50 percent. The proposed Project would increase the volume of solid waste generated in the County by approximately 40 tons per year. According to CalRecycle, solid waste facilities serving Riverside County are projected to have a combined annual disposal limit of 3,633,512 tons and an annual remaining lifetime capacity surplus of 154,709,576 tons in the year 2025.⁴⁶ Combined remaining capacities at the landfills would be adequate to accommodate the proposed Project. Impacts related to sufficient landfill capacity are anticipated to be less than significant.

e) **No Impact.** The proposed Project is required to comply with all applicable federal, state, County, and City statutes and regulations related to solid waste as a standard project condition of approval. Therefore, no impact would occur.

4.20 – Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **No Impact.** The Project site is not located within a fire hazard zone, as identified on the latest Fire Hazard Severity Zone (FHSZ) maps prepared by the California Department of Forestry and Fire Protection (CALFIRE).⁴⁷ The nearest fire hazard zone to the Project site is located approximately 1.25 miles east of the site in the Lake Perris/Terri Peak hillsides. There are no wildland conditions in the urbanized area where the Project site is located. Therefore, the Project will not substantially impair an adopted emergency response plan or emergency evacuation plan and no impact will occur.

b) **No Impact.** As discussed above, the Project site is not located within a fire hazard zone, as identified on the latest Fire Hazard Severity Zone (FHSZ) maps prepared by the California Department of Forestry and Fire Protection (CALFIRE). There are no wildland conditions in the urbanized area where the Project site is located. Therefore, the Project will not exacerbate wildfire risks, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact will occur.

c) **No Impact.** The Project Site is not located within or near any State Responsibility Areas. As a result, none of the Project improvements would exacerbate fire risk or will result in a temporary or ongoing

impact from wildfires requiring the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. No impact will occur.

d) **No Impact.** The Project Site is not located within or near any State Responsibility Areas. The Project site is also not located in any FEMA 100-year flood floodplain. No impact would occur.

4.21 – Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) **Less than Significant with Mitigation Incorporated.** The proposed Project would not substantially impact any scenic vistas, scenic resources, or the visual character of the area, as discussed in Section 4.1 and would not result in excessive light or glare. The Project site is located within a developed area with no natural habitat. The proposed Project would not significantly impact any sensitive plants, plant communities, fish, wildlife or habitat for any sensitive species with mitigation incorporated. Construction-phase mitigation would be implemented to reduce potential impacts to burrowing owls and nesting birds to less-than-significant levels. There would be no impact to migratory birds, however, as identified in Section 4.4.c, there is potential to affect jurisdictional waters. These affects will be mitigated by securing the necessary state and federal regulatory permits regarding U.S. and state jurisdictional waters and no cumulatively considerable impact will occur as a result. Adverse impacts to historic resources would not occur. Construction-phase procedures would be implemented in the event any important cultural, archaeological, or paleontological resources are discovered during grading, consistent with Mitigation Measures CUL-1 through CUL-5. This site is not known to have any association with an important example of California's history or prehistory. The environmental analysis provided in Section 4.3 concludes that impacts related to emissions of criteria pollutants and other air quality impacts would be less than significant with mitigation. Sections 4.8 and 4.10 conclude that impacts related to climate change and hydrology and water quality would be less than significant. Based on the preceding analysis of potential impacts in the responses to items 4.1 thru 4.20, no evidence is presented that this proposed Project would degrade the quality of the environment. Impacts related to degradation of the environment, biological resources, and cultural resources would be less than significant with mitigation incorporated.

b) **Less than Significant with Mitigation Incorporated.** Cumulative impacts can result from the interactions of environmental changes resulting from one proposed project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public services, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long term, due to the permanent land use changes and operational characteristics involved with the proposed Project. Cumulative impacts would be less than significant with mitigation incorporated, as further discussed herein.

Aesthetics

Impacts related to aesthetics at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Therefore, no cumulative impacts related to this topic would occur.

Agricultural Resources

The analysis provided in Sections 4.2 found that no individual impacts would occur; therefore, the Project could not contribute considerably to local agricultural or forestry.

Air Quality

The analysis provided in Section 4.3 related to air quality found that impacts would be less than significant with mitigation; therefore, the Project would not contribute to localized or regional cumulative impacts.

Biological Resources

The analysis provided in Section 4.4 found that no individual impacts to sensitive species or migratory birds would occur; therefore, the Project could not contribute considerably to regional impacts on such species. To reduce potential impacts to burrowing owls and nesting birds, Mitigation Measures BIO-1 through BIO-5 have been incorporated. The Project would have no other impacts on biological resources and would not result in localized or regional cumulative impacts.

Cultural Resources

Loss of on-site archaeological resources could reduce or eliminate important information relevant to the County of Riverside and the City of Moreno Valley. Impacts related to cultural resources were found to be potentially significant and require mitigation to reduce to less than significant levels; therefore, the Project could contribute considerably to significant localized cumulative impacts in this topic area. Mitigation Measures CUL-1 through CUL-4 have been incorporated to reduce impacts to archaeological resources and Mitigation Measure CUL-5 has been incorporated to reduce impacts to buried human remains. Implementation of Mitigation Measures CUL-1 through CUL-5 would eliminate any potential loss of important local archaeological information or human remains that may be buried under the Project site; therefore, the proposed Project would have no contribution to a cumulative loss of important local or regional archaeological knowledge.

Energy

The analysis provided in Section 4.6 found that no individual impacts relate to energy use would occur as a result of the proposed Project. Therefore, the Project will not contribute to cumulative energy impacts.

Geology and Soils

Impacts related to geology at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time

or space. Impacts related to paleontological resources were found to be potentially significant and require mitigation to reduce to less than significant levels; therefore, the Project could contribute considerably to significant localized cumulative impacts in this topic area. Implementation of Mitigation Measures GEO-1 through GEO-4 would eliminate any potential loss of important local paleontological information that may be buried under the Project site; therefore, the proposed Project would have no contribution to a cumulative loss of important local or regional paleontological knowledge. Therefore, no cumulative impacts related to this topic would occur.

Greenhouse Gas Emissions

As discussed in Section 4.8, climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. The Project would not contribute considerably to global climate change.

Hazardous Materials

The analysis provided in Section 4.9 related to hazards and hazardous materials found that impacts would be less than significant. Compliance with all regulations related to the disposal and storage of household hazardous waste would ensure that impacts would be less than significant.

Airport Hazards

Impacts related to airport hazards at the project-level have no potential for cumulative impacts because impacts are limited to on-site conditions and include no component that could result in similar impacts over time or space. Therefore, no cumulative impacts related to this topic would occur.

Wildfires

The analysis provided in Section 4.9(g) and 4.20 found that no individual, local, or regional impacts would occur; therefore, no cumulative impacts related to this topic would occur.

Groundwater Levels

The analysis provided in Section 4.10 (b) found that less than significant local, or regional impacts would occur; therefore, while the Project would contribute to individual, localized or regional cumulative impacts, the Project contribution would not be considerable.

Drainage/Water Quality

The analysis provided in Section 4.10 (a), (c), (d), (e) and (f), found that less than significant individual, local, or regional impacts would occur; therefore, while the proposed Project would contribute to individual, localized or regional cumulative impacts, its contribution would not be considerable.

Flooding

The analysis provided in Section 4.10 (d) found that no regional impacts would occur; therefore, no cumulative impacts related to this topic would occur.

Land Use and Planning

The analysis provided in Section 4.11 related to Land Use and Planning found that impacts would be less than significant; therefore, while the proposed Project would contribute to individual, localized or regional cumulative impacts, its contribution would not be considerable.

Mineral Resources

The analysis provided in Section 4.12 related to mineral resources found that there would be no impact; therefore, while the Project would contribute to localized or regional cumulative impacts, the Project contribution would not be considerable.

Noise

As discussed in Section 4.12, on-site operational noise, as is not anticipated to result in perceptible increases in ambient noise. Therefore, the proposed Project would not contribute considerably to noise levels in the immediate vicinity of the Project. The Project would contribute to temporary increases in noise levels in the immediate Project vicinity during construction activities; however, Mitigation Measures NOI-1 and General Plan EIR Mitigation Measures N5 and N10 would be incorporated by reference to minimize construction-related noise and therefore the Project's contribution would not be considerable. General Plan EIR Mitigation Measures N1, N2, N6, N7, and N9 would ensure that operational impacts to nearby sensitive receptors remain less than significant. The Project would increase traffic in the Project area; however, Project traffic-related noise would not be discernible (as discussed in Section 4.13.a) to the public and therefore would have no considerable contribution to cumulative traffic-related noise.

Population and Housing

The analysis provided in Section 4.14 related to Population and Housing found that no impacts would result; therefore, no cumulative impacts related to this topic would occur.

Public Services

The analysis provided in Section 4.15 related to Public Services found that impacts would be less than significant; therefore, while the proposed Project would contribute to localized cumulative impacts, the contribution would not be cumulatively considerable.

Recreation

The analysis provided in Section 4.16 related to Recreation found that impacts would be less than significant; therefore, no cumulative impacts related to this topic would occur.

Traffic and Transportation

Traffic conditions were analyzed in Section 4.17.a and found to be less than significant. There is and would be adequate capacity to serve the uses along Perris Boulevard and Krameria Avenue with the addition of the proposed Project. Therefore, the proposed Project's contribution to cumulative impacts to local and regional transportation facilities would not be considerable.

Tribal Cultural Resources

The analysis provided in Section 4.18 related to Tribal Cultural Resources identified that despite the previous disturbances of the Project site and developed nature of the Project area that may have displaced or submerged archaeological resources relating to TCR's on the surface, it is possible that intact tribal cultural resources exist at depth. Due to this uncertainty, Mitigation Measures CUL-1 through CUL-5 have been incorporated to address any previously undiscovered archaeological resources relating to TCR's encountered during Project implementation. Incorporation of these mitigation measures would ensure that potential impacts to buried TCRs are less than significant through requirements for evaluation, salvage, curation, and reporting.

Utilities and Service Systems

The analysis provided in Section 4.19 related to Utilities and Service Systems found that impacts would be less than significant; therefore, while the Project would contribute to localized or regional cumulative impacts, the Project contribution would not be considerable.

Wildfire

The analysis provided in Section 4.20 related to Wildfire found that no impacts would result; therefore, no cumulative impacts related to this topic would occur.

c) **Less than Significant with Mitigation Incorporated.** Based on the analysis of the Project's impacts in the responses to items 4.1 thru 4.20, there is no indication that this Project could result in substantial adverse effects on human beings. While there would be a variety of temporary adverse effects during construction related to noise these would be reduced to less than significant levels through mitigation. Long-term effects include increased vehicular traffic, traffic-related noise, use of household hazardous materials, emissions of criteria pollutants and greenhouse gas emissions, and increased demand on emergency response services. The analysis herein concludes that direct and indirect environmental effects would at worst require mitigation to reduce to less than significant levels. Environmental effects would result in less than significant impacts. Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings would be less than significant with mitigation incorporated.

This Page Intentionally Left Blank

5 Mitigation Summary

The following mitigation measures have been incorporated to mitigate the proposed Project's site-specific impacts not previously accounted for in the General Plan EIR:

- BIO-1 Pre-Construction Burrowing Owl Survey.** Burrowing owl pre-construction surveys shall be conducted within thirty (30) days prior to ground disturbance to avoid direct take of burrowing owls. Pre-construction surveys will follow the guidance outlined in Burrowing Owl Survey Instructions for the Western Riverside MSHCP (2006).
- BIO-2: Pre-Construction Nesting Bird Survey.** If vegetation removal is scheduled during the nesting season (typically February 1 to September 1), then a focused survey for active nests shall be conducted by a qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) no more than five (5) days prior to the beginning of project-related activities (including but not limited to equipment mobilization and staging, clearing, grubbing, vegetation removal, and grading). Surveys shall be conducted in proposed work areas, staging and storage areas, and soil, equipment, and material stockpile areas. For passerines and small raptors, surveys shall be conducted within a 250-foot radius surrounding the work area (in areas where access is feasible). For larger raptors, such as those from the genus *Buteo*, the survey area shall encompass a 500-foot radius. Surveys shall be conducted during weather conditions suited to maximize the observation of possible nests and shall concentrate on areas of suitable habitat. If a lapse in project-related work of five (5) days or longer occurs, an additional nest survey shall be required before work can be reinitiated. If nests are encountered during any preconstruction survey, a qualified biologist shall determine if it may be feasible for construction to continue as planned without impacting the success of the nest, depending on conditions specific to each nest and the relative location and rate of construction activities. If the qualified biologist determines construction activities have potential to adversely affect a nest, the biologist shall immediately inform the construction manager to halt construction activities within minimum exclusion buffer of 50 feet for songbird nests, and 200 to 500 feet for raptor nests, depending on species and location. Active nest(s) within the Project Site shall be monitored by a qualified biologist during construction if work is occurring directly adjacent to the established no-work buffer. Construction activities within the no-work buffer may proceed after a qualified biologist determines the nest is no longer active due to natural causes (e.g. young have fledged, predation, or other non-anthropogenic nest failure).
- BIO-3 Regulatory Agency Permits.** A "No Permit Required Letter" shall be obtained from the United States Army Corps of Engineers (USACE) prior to ground disturbing activities. A Section 401 Water Quality Certification or Waste Discharge Requirement (WDR) shall be obtained from the Regional Water Quality Control Board (RWQCB) prior to ground disturbing activities. A Section 1602 Lake and Streambed Alteration Agreement (LSAA) shall be obtained from the California Department of Fish and Wildlife (CDFW) prior to ground-disturbing activities.
- BIO-4 MSHCP Riparian/Riverine Resources.** All onsite MSHCP riparian (0.010 ac) and riverine (0.108 ac) resources will be impacted as a result of project implementation. In order to mitigate to an equivalent or superior level, 0.118 acres of re-establishment credits will be purchased at the Riverpark Mitigation Bank (1:1 mitigation ratio).
- BIO-5 SKR Fee Area.** The Project Site is located within the Stephens' kangaroo rat (SKR) HCP Fee Area which is administered by the RCHCA. The SKR Fee is established at \$500 per acre. Based on a Project site size of 20.18 acres, the applicant shall pay an SKR Fee in the amount of \$10,090.

CUL-1 Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) in consultation pursuant to Assembly Bill 52 (AB52) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in California Public Resources Code Section 21080.3.2(b)(1) of AB52. Details in the CRMP shall include:

- a. Project grading and development scheduling;
- b. The Project archeologist and the Consulting Tribes(s) as defined in CUL-1 shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training for those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;
- c. The protocols and stipulations that the contractor, City, Consulting Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

CUL-2 Prior to the issuance of a grading permit, the Developer shall secure agreements with the Rincon Band of Luiseño Indians, Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians for tribal monitoring. The Developer is also required to provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.

CUL-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

- a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:

- i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.
- ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CUL-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CUL-1.

CUL-4 The City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

CUL-5 If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CUL-1 before any further work commences in the affected area.

CUL-6 If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

GEO-1 Conduct Paleontological Sensitivity Training for Construction Personnel. The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training will include a handout and will focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary.

GEO-2 Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities. The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below five feet to determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks will be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist

determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources will be required. The applicant shall retain a qualified paleontological monitor, who will work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth-moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if determined adequate by the qualified professional paleontologist.

GEO-3 Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered. If paleontological resources and or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the City. Work shall be allowed to continue outside of the buffer area. The applicant and City shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing.

GEO-4 Prepare Report Upon Completion of Paleontological Monitoring or Salvage Services. Upon completion of monitoring and/or salvage activities (if required by Mitigation Measures GEO-2 or GEO-3), the professional paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted to the applicant, the City, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

NOI-1 The following measures are required to ensure that project-related short-term construction noise levels are reduced to less-than-significant levels. Prior to issuance of demolition permits, a noise mitigation plan verifying that compliance with the following measures would reduce construction noise to within the allowable levels of 60 dBA for residential uses. Should construction noise exceed allowable levels after implementation of the following measures, the use of sound curtains or other noise barriers shall be required. The noise mitigation plan shall identify the type and location of sound curtains or other noise barriers to be utilized to reduce construction noise to within allowable levels.

- Stationary construction noise sources such as generators or pumps must be located at least 100 feet from sensitive land uses, as feasible, or at maximum distance when necessary to complete work near sensitive land uses. This mitigation measure must be implemented throughout construction and may be periodically monitored by a contracted noise monitor. Datasheets completed by the contracted construction noise monitor may be submitted to the Planning Official, or designee during routine inspections.
- Construction staging areas must be located as far from noise sensitive land uses as feasible. This mitigation measure must be implemented throughout construction and may be

periodically monitored by a contracted construction noise monitor, by the Planning Official or designee during routine inspections.

- Throughout construction, the contractor shall ensure all construction equipment is equipped with included noise attenuating devices and are properly maintained. This mitigation measure shall be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.
- Idling equipment must be turned off when not in use. This mitigation measure may be periodically monitored by a contracted construction noise monitor the Planning Official, or designee during routine inspections.
- Equipment must be maintained so that vehicles and their loads are secured from rattling and banging. This mitigation measure may be periodically monitored by a contracted construction noise monitor, the Planning Official, or designee during routine inspections.

The following mitigation measures have been incorporated by reference from the General Plan EIR to mitigate the proposed Project's impacts in light of the analysis performed in the Certified EIR:

- HW1.** The City shall implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting the water resources (**Policy 5.4.2**).
- HW3.** The City shall comply with the provisions of its permit(s) issued by the Regional Water Quality Control Board for the protection of water quality pursuant to the National Pollutant Discharge Elimination System (**Policy 7.2.2**).
- NOI1.** The following noise control measures shall be applied to new single-family dwellings exposed to noise along Perris Boulevard:
- a. Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.
 - b. Install double-paned or similar sound rated windows.
 - a. Provide sound insulating exterior walls and roofing systems.
 - b. Locate and/or design attic vents to minimize sound propagation into each home.
 - c. Provide forced-air ventilation systems.
 - d. Place dwellings as far as practical from the noise source.
- N5.** Construction activities shall be operated in a manner that limits noise impacts on surrounding uses to the hours between 7 AM and 7 PM Monday through Friday and between 8 AM and 4 PM on Saturday, excluding Sundays and Holidays unless written approval is obtained from the City Building Official or City Engineer (**Policy 6.5.2**).
- N7.** The following uses shall require mitigation to reduce noise exposure where current or future exterior noise levels exceed 20 CNEL above the desired interior noise level (**Policy 6.3.1**):
- a. New single-family and multiple-family residential buildings shall be insulated to achieve an interior noise level of 45 CNEL or less. Such buildings shall include sound-insulating windows, walls, roofs and ventilation systems. Sound barriers shall also be installed (e.g. masonry walls or walls with berms) between single-family residences and major roadways.
 - b. New libraries, hospitals and extended medical care facilities, places of worship and office uses shall be insulated to achieve interior noise levels of 50 CNEL or less.
 - c. New schools shall be insulated to achieve interior noise levels of 45 CNEL or less.

Mitigation Summary

- N10.** Building construction shall be prohibited between 7 PM and 7 AM Monday through Friday, between 4 PM and 8 AM on Saturdays, and on Sundays and Holidays unless written approval is obtained from the City Building Official or City Engineer (**Policy 6.3.6**).

6.1 – *List of Preparers*

City of Moreno Valley (Lead Agency)

Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, California 92552

- Julia Descoteaux, Associate Planner

MIG, Inc.

1500 Iowa Avenue, Suite 110
Riverside, California 92507
951-787-9222

- Bob Prasse, Director of Environmental Services
- Chris Dugan, Director of Air Quality, GHG, and Noise Services
- Phillip Gleason, Senior Analyst
- Cameron Hile, Associate Analyst II

6.2 – *Persons and Organizations Consulted*

- City of Moreno Valley
- United States Army Corps of Engineers (USACE)
- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)
- Western Riverside County Regional Conservation Authority (RCA)

6.3 – Citations

- 1 City of Moreno Valley General Plan. Conservation Element. Chapter 9: Goals and Policies. Page 9-37 and 9-38. July 11, 2006.
- 2 California Department of Transportation. California Scenic Highway Program. Riverside County. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm [Accessed August 2019].
- 3 City of Moreno Valley General Plan. Conservation Element. Figure 7-2: Major Scenic Resources. Page 7-14. July 11, 2006.
- 4 California Department of Conservation. Riverside County Important Farmland Map Sheet 1 of 3. 2014.
- 5 California Department of Conservation. Riverside County Important Farmland Map Sheet 1 of 3. 2014.
- 6 City of Moreno Valley. *General Plan Environmental Impact Report*. Agricultural Resources. July 2006.
- 7 California Department of Conservation. Williamson Act Program. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_w_15_16_WA.pdf [Accessed August 2019].
- 8 South Coast Air Quality Management District. CEQA Air Quality Handbook. 1993.
- 9 National Park Service. National Register of Historic Places. <http://www.cr.nps.gov/nr/research/> [Accessed August 2019].
- 10 California State Parks Office of Historic Preservation. California Historical Resources: Riverside County. <http://ohp.parks.ca.gov/listedresources/> [Accessed August 2019].
- 11 City of Moreno Valley. *General Plan Environmental Impact Report*. Cultural Resources. July 2006.
- 12 City of Moreno Valley. *General Plan Environmental Impact Report*. Geology and Soils. July 2006.
- 13 McLeod, Samuel, Natural History Museum of Los Angeles County, Vertebrate Paleontology Section. 10, April ,2019. Letter Report in support of the 69-Lot Single-Family Residential Subdivision Project to Chris Purtell, MIG, Inc. Riverside, CA.
- 14 City of Moreno Valley. *General Plan Environmental Impact Report*. Cultural Resources. July 2006.
- 15 McLeod, Samuel, Natural History Museum of Los Angeles County, Vertebrate Paleontology Section. 10, April ,2019. Letter Report in support of the 69-Lot Single-Family Residential Subdivision Project to Chris Purtell, MIG, Inc. Riverside, CA.
- 16 City of Moreno Valley. *General Plan Environmental Impact Report*. Cultural Resources. July 2006.
- 17 United States Environmental Protection Agency. Frequently Asked Questions About Global Warming and Climate Change. Back to Basics. April 2009.
- 18 City of Moreno Valley. *General Plan Environmental Impact Report*. Hazards. July 2006.
- 19 State Water Resources Control Board. GeoTracker. <https://geotracker.waterboards.ca.gov/> [Accessed August 2019].
- 20 California Environmental Protection Agency. Cortese List Data Resources. <http://www.calepa.ca.gov/sitecleanup/corteselist/> [Accessed August 2019].
- 21 California Department of Toxic Substances Control. DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List). http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm [Accessed August 2019].
- 22 California State Water Resources Control Board. GeoTracker. <https://geotracker.waterboards.ca.gov/> [Accessed August 2019].
- 23 California State Water Resources Control Board. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit.

-
- <http://www.calepa.ca.gov/files/2016/10/SiteCleanup-CorteseList-CurrentList.pdf> [Accessed August 2019].
- 24 California State Water Resources Control Board. List of Active CDO and CAO.
<http://www.calepa.ca.gov/sitecleanup/corteselist/> [Accessed August 2019].
- 25 California Department of Toxic Substances Control. Cortese List: Section 65962.5(a).
<https://www.calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/> [Accessed August 2019].
- 26 Federal Aviation Administration. Airport Data and Contact Information.
http://www.faa.gov/airports/airport_safety/airportdata_5010/ [Accessed August 2019].
- 27 California Department of Forestry and Fire Protection. Very High Fire Hazard Severity Zones In LRA – Western Riverside County. December 2009.
- 28 City of Moreno Valley. *General Plan Environmental Impact Report*. Hydrology and Water Quality. July 2006.
- 29 Federal Emergency Management Agency. Flood Insurance Rate Map. Map Number 06065C0765G. August 28, 2008.
- 30 City of Moreno Valley. *General Plan Environmental Impact Report*. Hazards. July 2006
- 31 City of Moreno Valley. *General Plan Environmental Impact Report*. Mineral Resources. July 2006.
- 32 California Department of Transportation. Basics of Highway Noise: Technical Noise Supplement. September 2013
- 33 California Governor's Office of Planning and Research. General Plan Guidelines. 2003
- 34 City of Moreno Valley. *General Plan Environmental Impact Report*. Noise. July 2006
- 35 United States Bureau of Mines. Mining Machinery Noise Control Guidelines. 1983
- 36 United States Bureau of Mines. Noise Abatement Techniques for Construction Equipment. August 1979
- 37 California Department of Transportation. Transportation- and Construction-Induced Vibration Guidance Manual. September 2013
- 38 Federal Aviation Administration. Airport Data and Contact Information.
http://www.faa.gov/airports/airport_safety/airportdata_5010/ [Accessed September 2019].
- 39 City of Moreno Valley. *General Plan Environmental Impact Report*. Population and Housing. July 2006.
- 40 City of Moreno Valley. *General Plan Environmental Impact Report*. Public Services. July 2006.
- 41 City of Moreno Valley. *General Plan Environmental Impact Report*. Transportation and Traffic. July 2006.
- 42 City of Moreno Valley. Department of Transportation Engineering: 2017 Traffic Counts.
http://www.moval.org/city_hall/departments/pub-works/transportation/pdfs/traffic-counts.pdf
[Accessed September 2019].
- 43 Eastern Municipal Water District. Moreno Valley Regional Water Reclamation Facility. October 2016 <https://www.emwd.org/home/showdocument?id=1423> [Accessed September 2019].
- 44 Eastern Municipal Water District. 2015 Urban Water Management Plan. June 2016
- 45 Eastern Municipal Water District. 2015 Urban Water Management Plan. June 2016
- 46 CalRecycle. Identify Disposal Facility Capacity Shortfalls.
<http://www.calrecycle.ca.gov/FacIT/facility/disposalgap.aspx> [Accessed September 2019].
- 47 California Department of Forestry and Fire Protection. Very High Fire Hazard Severity Zones In LRA – Western Riverside County. December 2009.

This Page Intentionally Left Blank