CITY OF MORENO VALLEY

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION FOR COTTONWOOD VILLAGE

COTTONWOOD VILLAGE (PEN21-0045, PEN21-0127, & PEN22-0010)

February 2022

Lead Agency
CITY OF MORENO VALLEY
14177 Frederick Street
Moreno Valley, CA 92552

Prepared By
Matthew Fagan
Matthew Fagan Consulting Services, Inc.
42011 Avenida Vista Ladera
Temecula, VA 92591
951.265-5428
matthewfagan@roadrunner.com

TABLE OF CONTENTS

FIGURES

Tables

APPENDICES
(Separate Documents Provided Electronically)

Appendix A: *Air Quality and GHG Impact Analysis*, prepared by Giroux & Associates, 6-10-2021

Appendix B: *Biological Resources Assessment, Jurisdictional Delineation Report & MSHCP Consistency Analysis*, prepared by Jacobs Engineering Group, Inc., 6-2021

Appendix C: *Cultural Resources Survey Report,* prepared by CRM TECH, 9-23-2021 (Non-Confidential)

Appendix D1: *Geotechnical Evaluation,* prepared by GeoTek, Inc., 4-10-2014

Appendix D2: *Geotechnical Evaluation Update,* prepared by GeoTek, Inc., 6-24-2021

Appendix E: *Phase I Environmental Site Assessment*, prepared by GeoTek, Inc., 12-23-2020

Appendix F1: *Preliminary Hydrology Study*, prepared by Blue Engineering and Consulting, Inc., 1-4-2022

Appendix F2: *Project Specific Water Quality Management Plan,* prepared by Blue Engineering and Consulting, 1-12-2022

Appendix G: *Noise Impact Analysis,* prepared by Urban Crossroads, Inc., 6-23-2021

Appendix H1: *Trip Generation Assessment,* prepared by Urban Crossroads, Inc., 7-27-2020

Appendix H2: *Vehicle Miles Traveled (VMT) Screening Evaluation,* prepared by Urban Crossroads, Inc., 5-27-2021

Appendix I: Project Plans, 2-2022

Appendix J: *Site Photos*, prepared by Project Team, 2021

Mitigation Monitoring And Reporting Program - Provided as a Separate Document (if applicable)

INITIAL STUDY (IS) FOR COTTONWOOD VILLAGE

1. **Project Case Number(s):** Initial Study/MND (PEN21-0045), Tentative Tract Map (PEN22-0010) – Tentative Condo Map 34544, and Plot Plan (PEN21-0127)

2. **Project Title:** Cottonwood Village

3. **Public Comment Period:** Begins March 23, 2022 and ends April 13, 2022

4. **Lead Agency:** City of Moreno Valley
   Kirt Coury, Planning Consultant, Planning Department
   14177 Frederick Street
   Moreno Valley, CA 92552
   949.547.9570
   kirtc@moval.org

5. **Documents Posted At:** https://moval.gov/cdd/documents/about-projects.html

6. **Prepared By:** Matthew Fagan
   Matthew Fagan Consulting Services, Inc.
   42011 Avenida Vista Ladera
   Temecula, VA 92591
   951.265-5428
   matthewfagan@roadrunner.com

7. **Project Sponsor:**

   Applicant/Developer/Property Owner
   Citivest Commercial Investments
   Pacific National Development
   4340 Von Karman Ave., Ste. 110
   Newport Beach, CA 92660
   949.645.1000
   al@pnd1.com

8. **Project Location:** Northerly of Cottonwood Avenue, approximately 575 feet easterly of the intersection of Perris Boulevard and Cottonwood Avenue, in the City of Moreno Valley, County of Riverside, California. United States Geographic Survey (USGS) 7.5-minute Sunnymead Quadrangle, California in Township 3 South, Range 3 West, Section 8. Assessor's Parcel Number 479-140-022. Reference **Figure 1, *Regional Location Map*** and **Figure 2, *Vicinity Map.***

9. **General Plan Designation:** Corridor Mixed Use (COMU). Reference **Figure 3, *Existing General Plan Land Use Designations***.

According to the General Plan, the primary purpose of areas designated COMU is…"this designation provides for a mix of housing with supporting retail and services that cater to the daily needs of local residents. Permitted uses include housing, retail, restaurants, personal services, public uses, and professional business offices. Retail uses should be concentrated at intersections and limited to no more than 25 percent of the maximum permitted FAR, excluding parking. A mix of uses is not required on every site but is desired on sites at intersections in order to foster nodes of commercial mixed use development along the corridor. Mixed use may be in either a vertical format (multiple uses in the same building) or horizontal format (multiple single-use buildings on the same parcel). The allowable residential density is 15-25 dwelling units per acre, with densities on the lower end of that range where proposed development abuts existing low density residential development. Maximum permitted FAR for commercial uses is 1.0. On smaller parcels, additional FAR may be permitted to achieve the desired vision for the area." (p. 2-10, Land Use and Community Character Element, 2040 General Plan) Reference **Figure 3, *Existing General Plan Land Use Designations***.

10. **Specific Plan Name and Designation:** N/A.

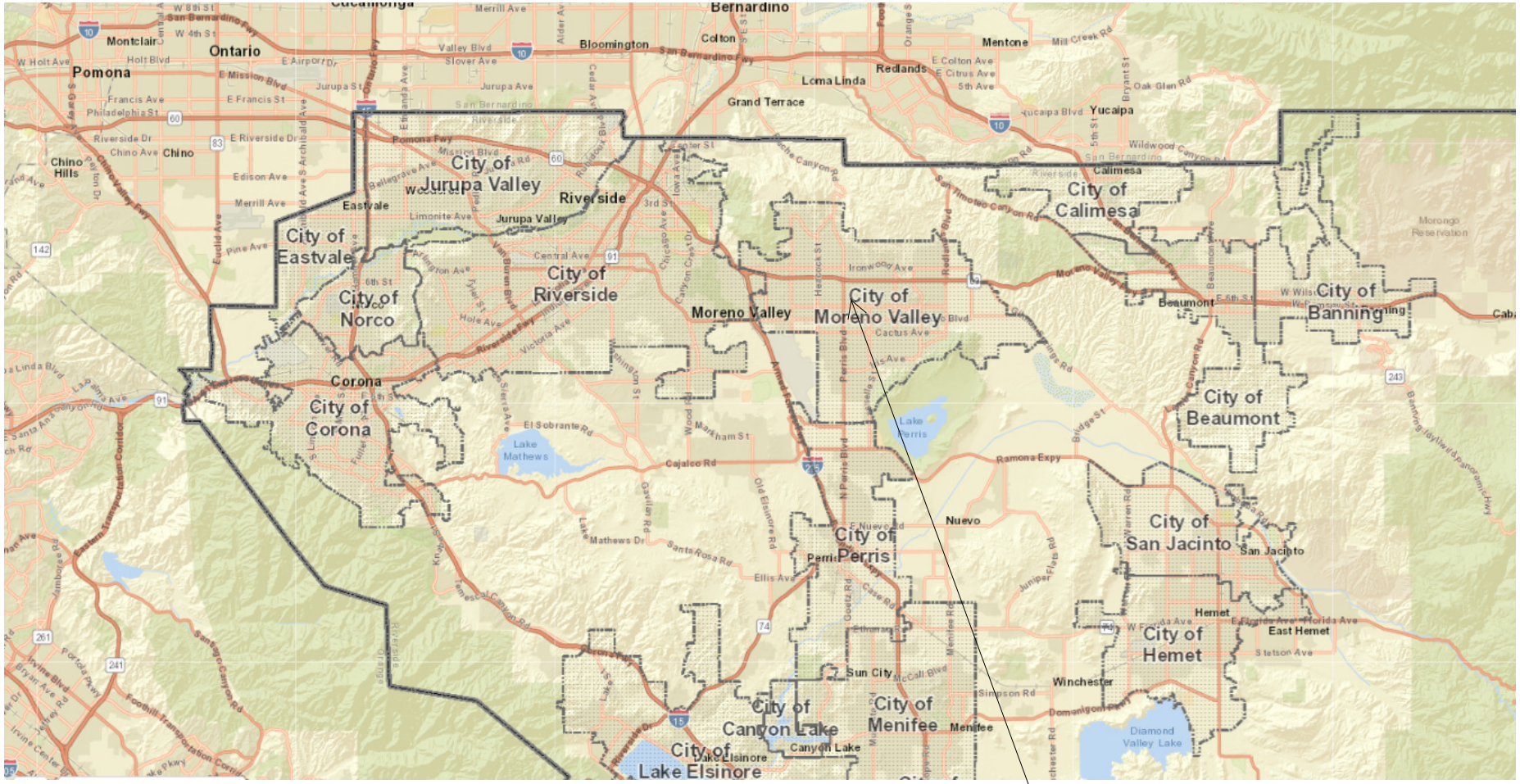
11. **Existing Zoning:** Corridor Mixed Use (COMU). Reference **Figure 4, *Existing Zoning Classifications***. Reference **Figure 4, *Existing Zoning Classifications***.

General Plan and Zoning Compatibility

The site is designated for Corridor Mixed Use in the 2040 General Plan and similar Zoning outlined in the Municipal Code. The site is largely surrounded by land designated for 5 units per acre (Residential 5 GP designation and R5 zoning) although there are nearby properties designated for Corridor Mixed Use to further to the west along Perris Boulevard and immediately southwest, south, and southeast of the site across Cottonwood Avenue and east of the site. Existing uses to the south across Cottonwood Avenue the land has very deep residential lots supporting a mixture of residential and truck or vehicle-related industrial activities.

There are 19 single family lots surrounding the Project site 15 of which appear to be single story homes – the four two-story homes are near the southeast corner of the site. The site plan and architectural illustrative application materials (Project Plans) indicate the Project will have 23 two-story buildings each containing 4 townhouse units (total 92 units on 9 acres or 10.2 units per gross acre). The 4-plex buildings will be distributed throughout the Project site as shown in **Figure 5, *Site Plan***. There will be six 4-plex buildings along each of the east, north, and west boundaries of the site and the buildings will be of similar size to many of the large single-family homes adjacent to the site. However, all of the 4-plex buildings will be two-story and most of the existing adjacent single-family residences are one-story (except four two-story homes near the southeast portion of the site). The proposed townhouse project is not fully consistent with the existing single family land use and zoning designation to the north and northeast (R5); however, this is only due to the project's scale. The surrounding development is single-family residential detached dwelling units, and the project is multi-family attached dwelling units. Adequate buffers have been provided between the existing and proposed residential uses. In addition, the project site has been designated for higher density residential uses (i.e.,R10 with 10 units/acre) going back to when the previous 2006 General Plan was adopted. The Project buildings will have Craftsman design elements, in two complementary styles, and will be generally consistent with the existing 2040 General Plan and current zoning designations. The Project will be consistent with the General Plan land use designation and zoning classification for the lands south of Cottonwood Avenue (and the site) that are east of Perris Boulevard (see **Table 1, *Project Site and Surrounding Land Uses*** for surrounding land uses).

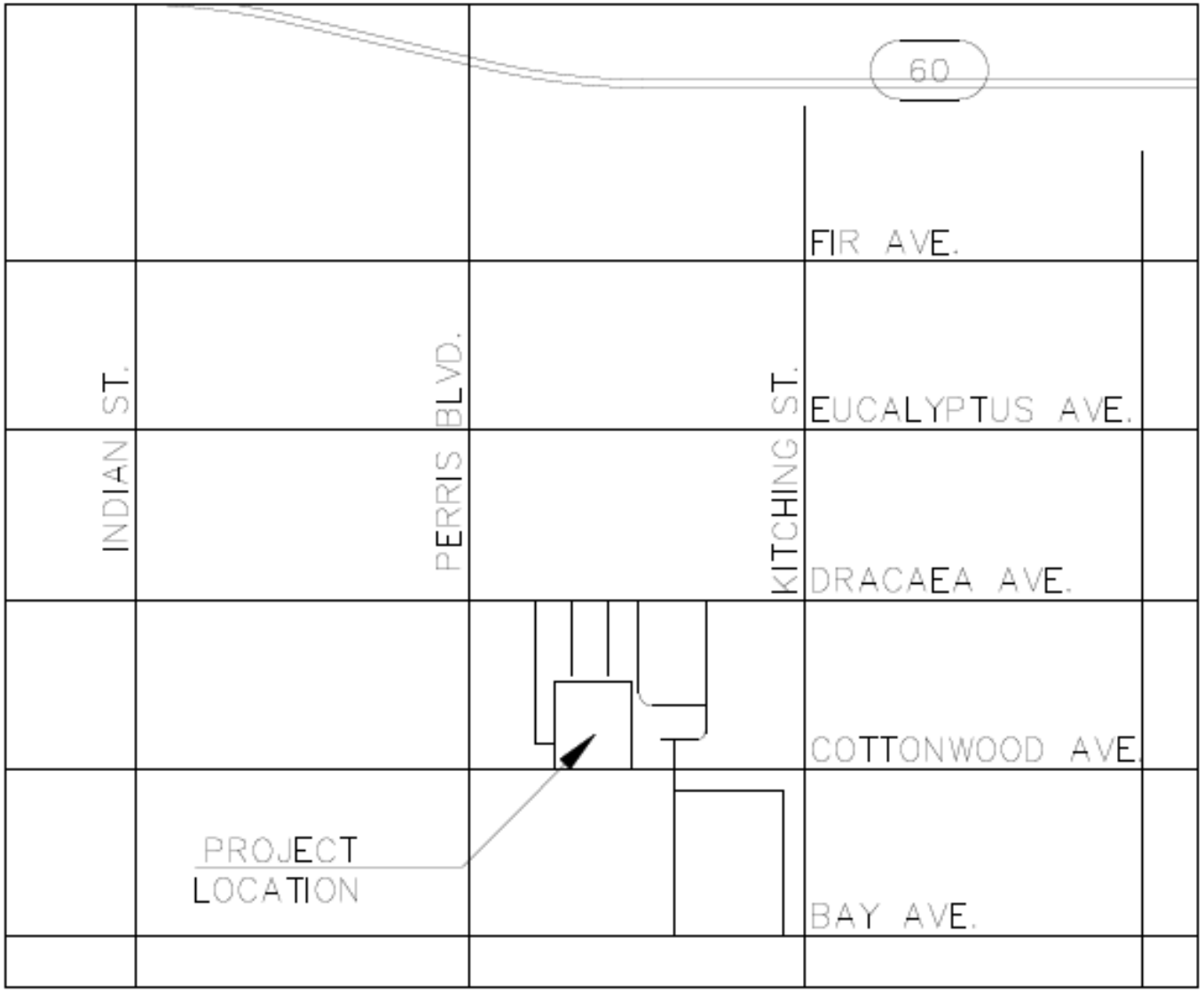
FIGURE 1
REGIONAL LOCATION MAP



Source: Map My County – https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

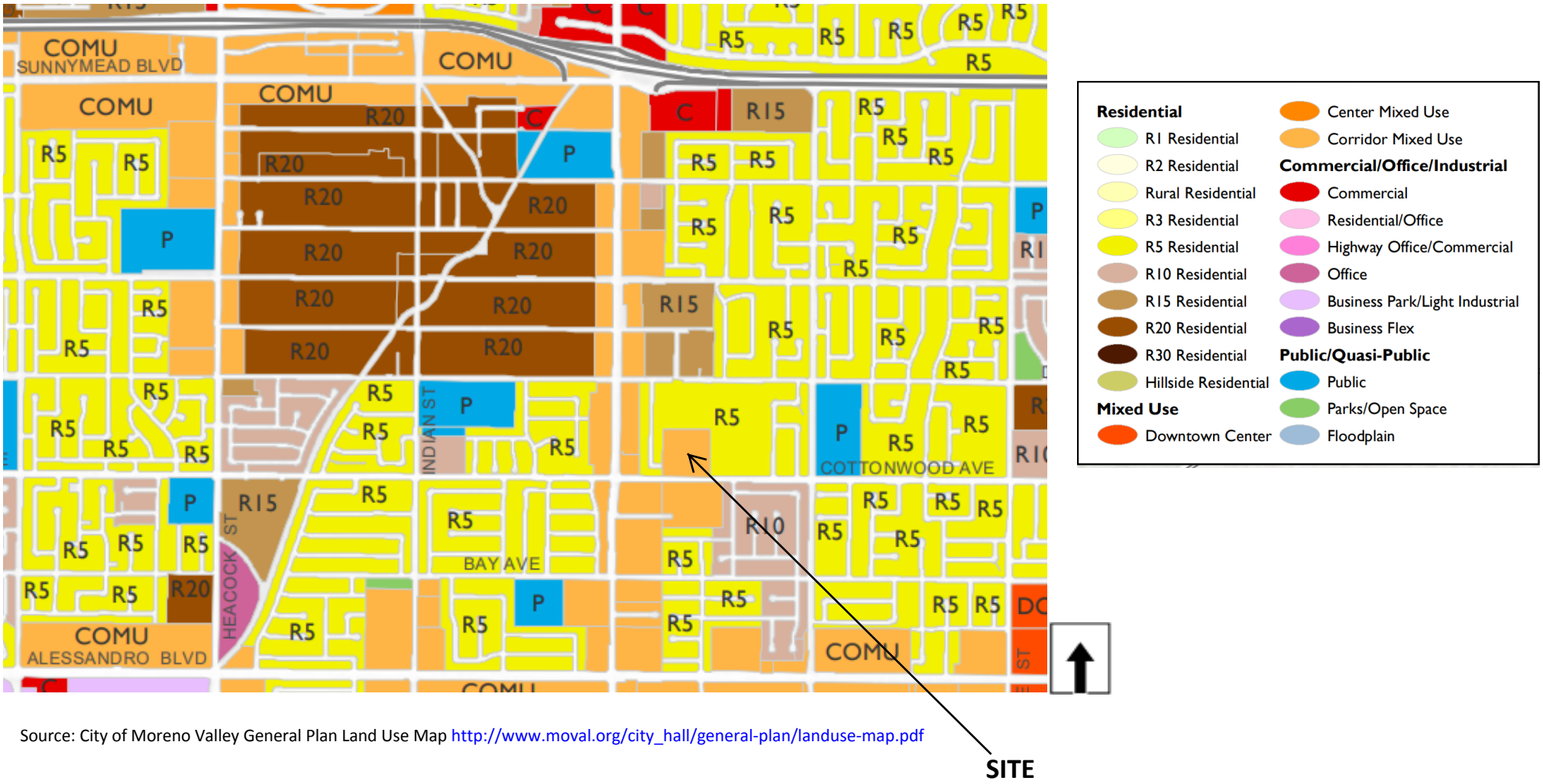
APPROXIMATE SITE LOCATION

FIGURE 2
VICINITY MAP



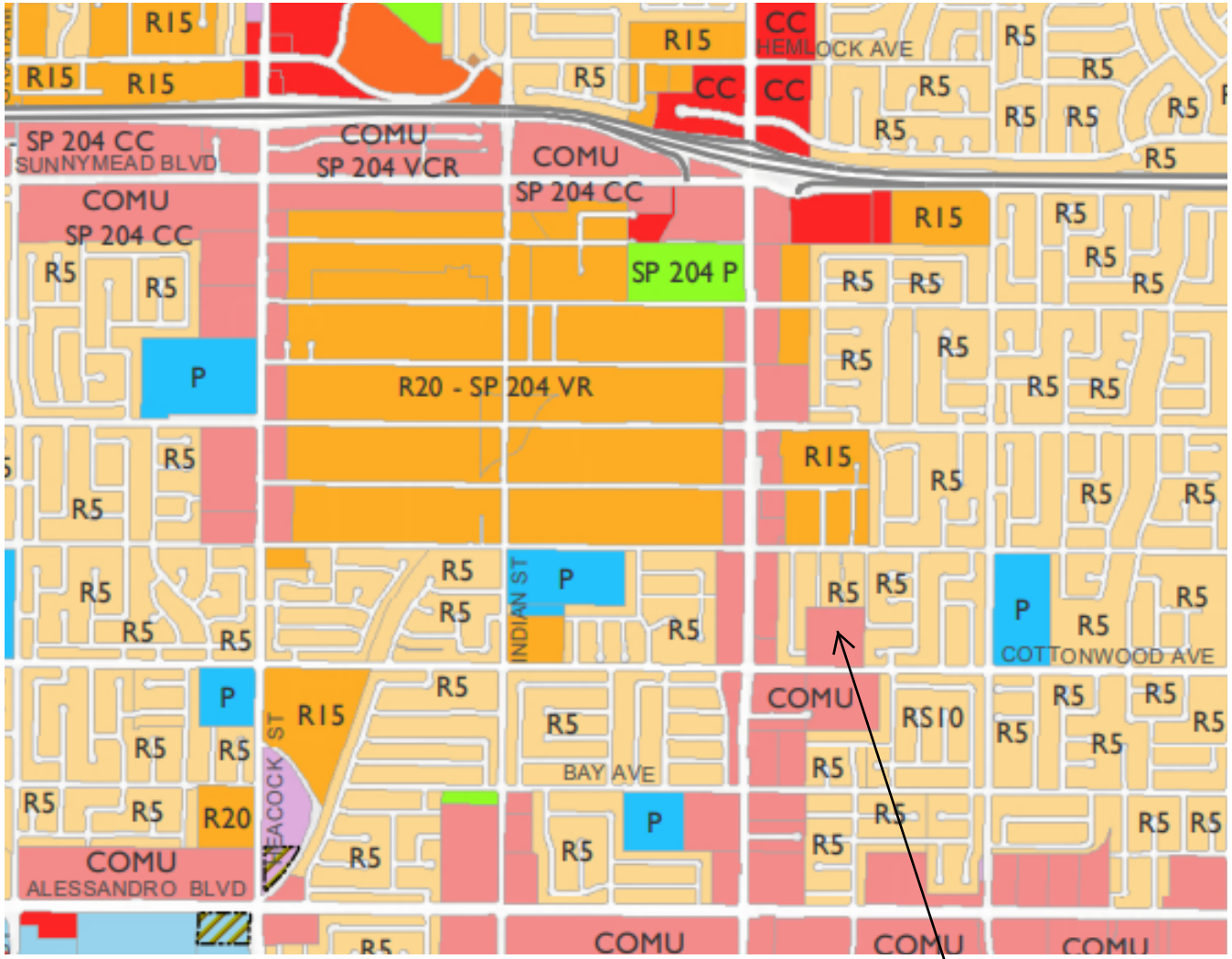
Source: Project Plans – (Appendix J)

FIGURE 3
EXISTING GENERAL PLAN LAND USE DESIGNATIONS



Source: City of Moreno Valley General Plan Land Use Map http://www.moval.org/city_hall/general-plan/landuse-map.pdf

FIGURE 4
EXISTING ZONING CLASSIFICATIONS



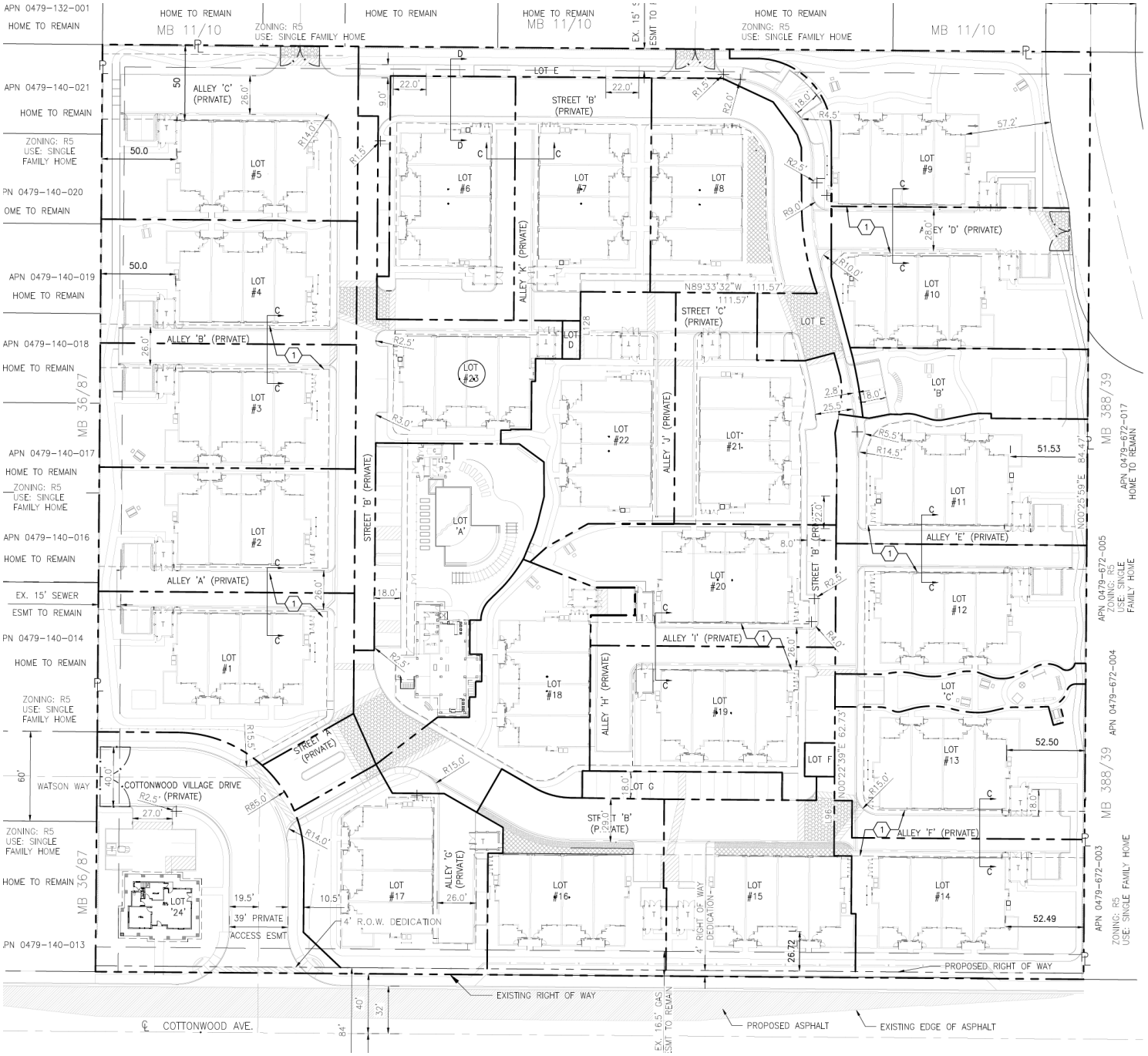
Zoning

- Commercial
- Center Mixed Use
- Downtown Center
- Corridor Mixed Use
- Industrial/Business Park
- Public Facilities
- Highway Office/Commercial
- Office
- Business Flex
- Large Lot Residential
- Residential Agriculture 2 DU/AC
- Residential 2 DU/AC
- Suburban Residential
- Multi-Family
- Open Space/Park

Source: City of Moreno Valley Zoning Map http://www.moval.org/cdd/pdfs/ZoningMap.pdf

SITE

FIGURE 5
SITE PLAN



Source: Project Plans – (Appendix J)

12. **Surrounding Land Uses and Setting:**

Reference **Figure 6, *Aerial Photo***.

Table 1
Project Site and Surrounding Land Uses

Location	Existing Land Use	General Plan	Zoning
Project Site	Vacant	Corridor Mixed Use (COMU)	Corridor Mixed Use (COMU)
North	Residential	Residential: Maximum 5 dwelling units/acre	Suburban Residential: Maximum 5 dwelling units/acre
South	Residential, Commercial	Corridor Mixed Use (COMU)	Corridor Mixed Use (COMU)
East	Residential	Residential: Maximum 5 dwelling units/acre and Corridor Mixed Use (COMU)	Suburban Residential: Maximum 5 dwelling units/acre and Corridor Mixed Use (COMU)
West	Residential	Residential: Maximum 5 dwelling units/acre and Corridor Mixed Use (COMU)	Suburban Residential: Maximum 5 dwelling units/acre and Corridor Mixed Use (COMU)

13. **Description of the Site and Project:**

Environmental Setting

The site is relatively flat with an estimated 6 feet of elevation differential across the site and surface drainage generally directed toward the south. Topographically, the property ranges from approximately 1,588 to approximately 1,593 feet above mean sea level (AMSL).

The Project site is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends roughly 975 miles from the north and northeasterly adjacent the Transverse Ranges geomorphic province to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zones trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

The Project site consists of a cleared/graded vacant lot surrounded by urban landscape consisting of residential development to the north, west, and east; and commercial development to the south. Existing disturbances within the project site include periodic disking, dumping, and litter.

The project site is completely disturbed, consisting mostly of disked bare ground, and no longer supports any native habitat. Sparse vegetation cover within the project site is

dominated by non-native, invasive species, consisting primarily of field bindweed (*Convolvulus arvensis*) and non-native grasses including slim oat (*Avena barbata*), brome grasses (*Bromus* spp.), Bermuda grass (*Cynodon dactylon*), Italian rye grass (*Festuca perennis*), and foxtail barley (*Hordeum murinu*).

The only wildlife species observed or otherwise detected during the reconnaissance-level survey were birds, including American kestrel (*Falco sparverius*), house sparrow (*Passer domesticus*), Cassin's kingbird (*Tyrannus vociferans*), and mourning dove (*Zenaida macroura*).

Project Description

The Project includes the following applications to the City:

- Initial Study/MND (PEN21-0045)
- Tentative Tract Map (PEN22-0010) – Tentative Condo Map 34544
- Plot Plan (PEN21-0127)

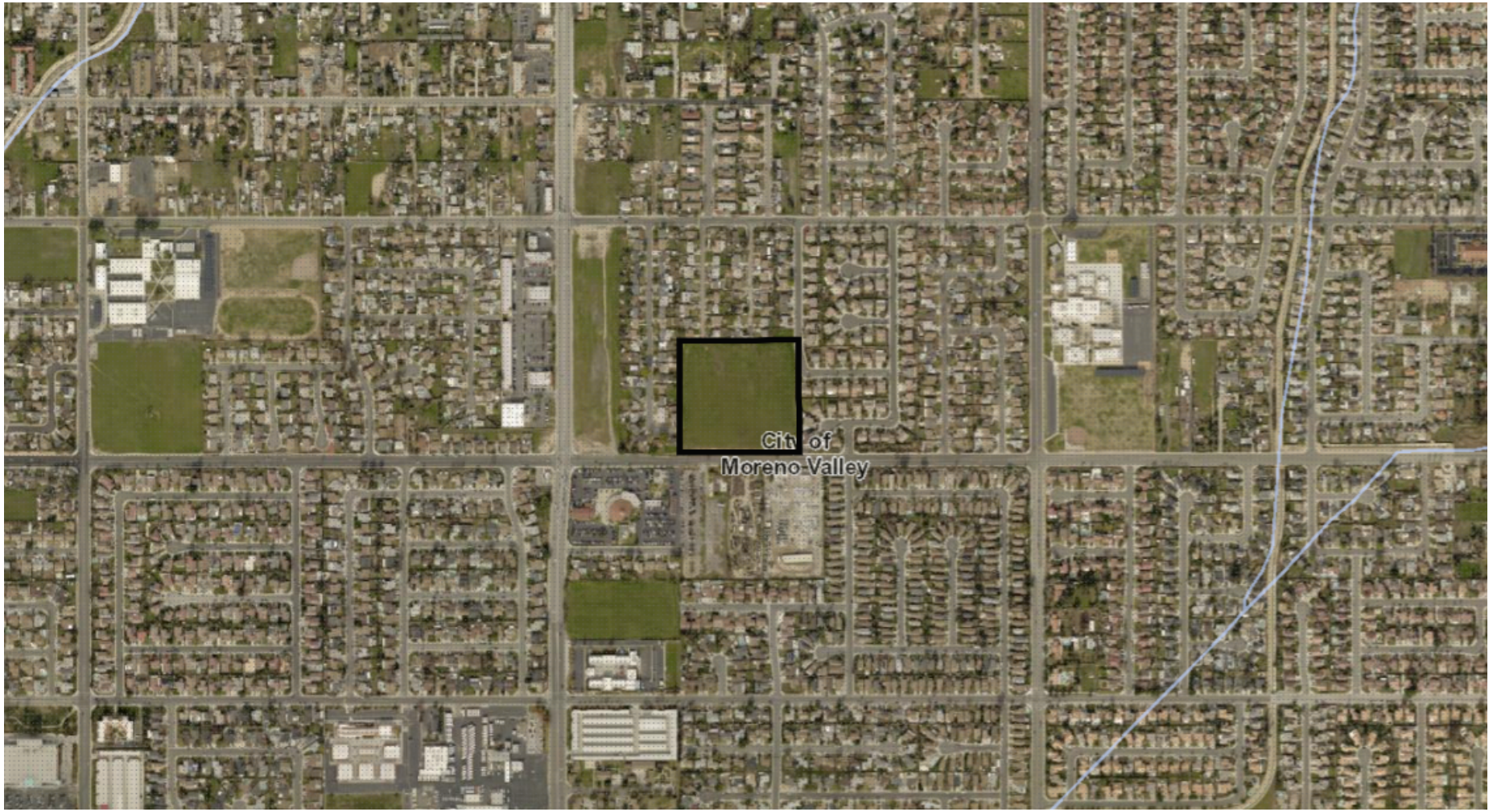
Tentative Tract Map (PEN22-0010) & Plot Plan (PEN21-0127)

The Project site is located northerly of Cottonwood Avenue, primarily northeasterly of the intersection of Cottonwood Avenue and Watson Way. The Project site is approximately 9 acres and is proposing the development of twenty-three (23) residential buildings (4-plex) on the site, with a total of ninety-two (92) 3-bedroom townhome units. There is also a leasing/management unit proposed at the southwestern portion of the site. The Project includes an internal recreation center, as well as landscape areas throughout for passive and active recreation. 289 parking spaces will be provided. Reference **Figure 5, *Site Plan*** and **Figure 7, *Tentative Tract Map 34544***.

Building Architecture and Materials

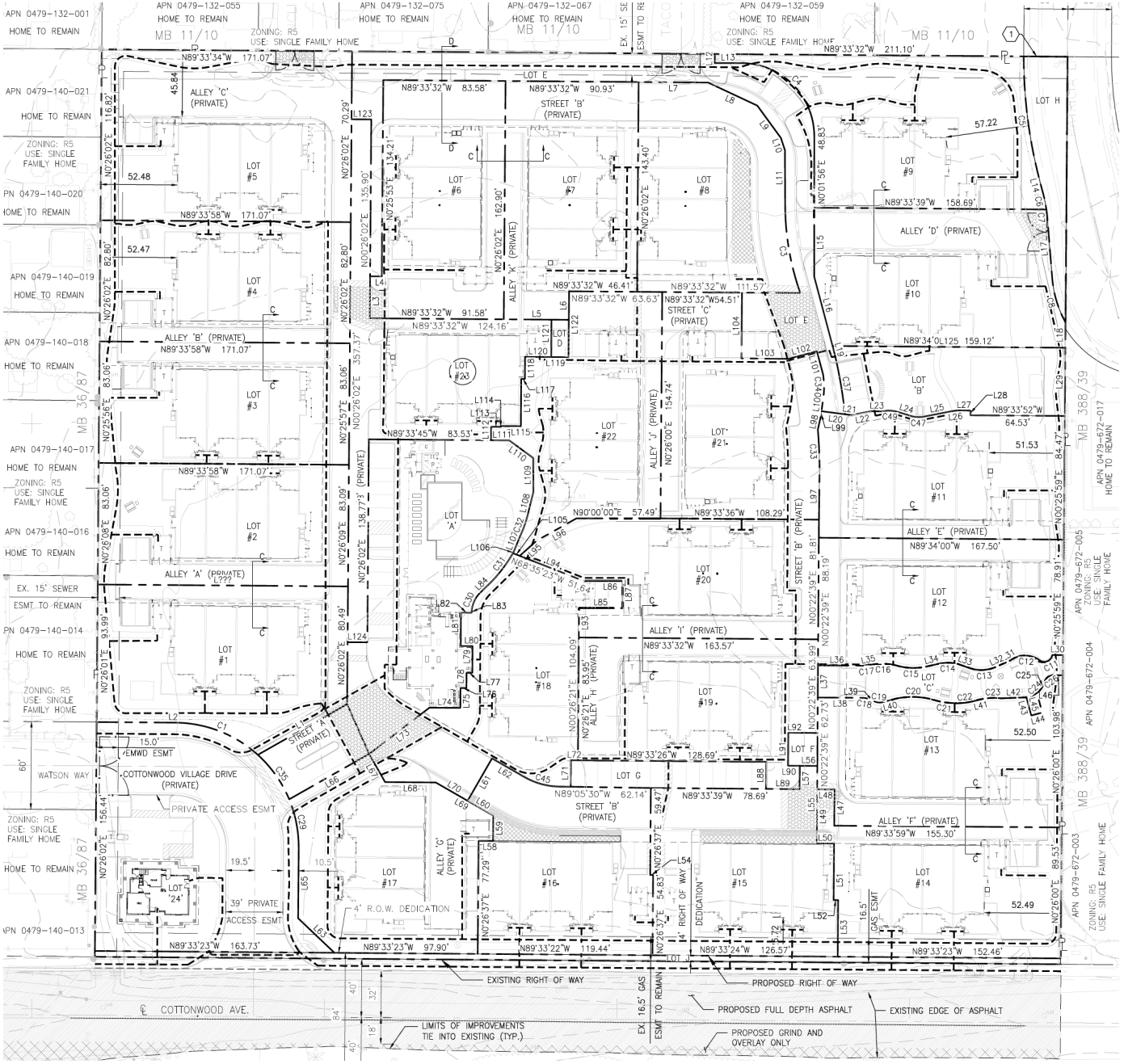
The architectural style selected for the Cottonwood Village is California Craftsman along with defining characteristics of that style. It is intended that definable architectural styles be utilized so that elevations are easily identifiable, and the street scene is diverse. Reference **Figure 8, *Elevations***.

FIGURE 6
AERIAL PHOTO



Source: Map My County – https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

FIGURE 7
TENTATIVE TRACT MAP 34544



Source: Project Plans – (Appendix I)

FIGURE 8
ELEVATIONS

Source: Project Plans – (Appendix I)

Access/Circulation

The primary access to the Project will be from Cottonwood Avenue. There will be an internal drive lane (loop) that will provide vehicular access to all of the units.

There are four existing streets that dead end into the proposed development. Each will be equipped with emergency gates that the fire department can open in case of emergency:

1. Watson Way;
2. Bencliff Avenue;
3. Tacoma Street; and
4. Patricia Lane.

The gates will swing into the property; they will be manually operated and have a standard "Knox" type of lock that all emergency services vehicles carry for access and egress.

Sidewalks will be provided on the Cottonwood Avenue frontage and will also be provided within the Project site, creating a comprehensive pedestrian pathway.

Landscaping

All Project landscaping is subject to the requirements of the City of Moreno Valley Municipal Code. Reference **Figure 9, *Conceptual Landscape Plan***.

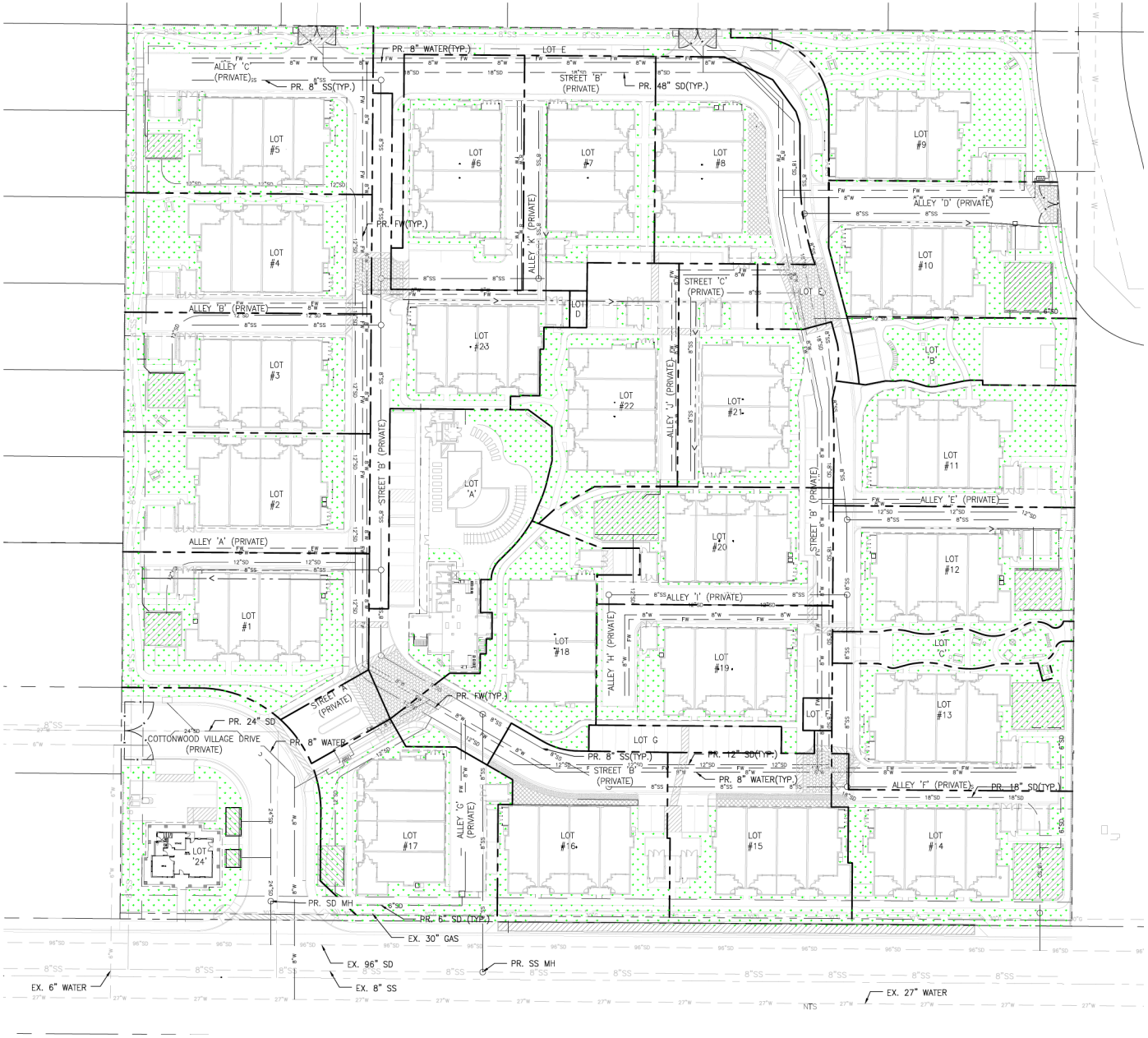
Grading and Construction

The Project rough grading will involve approximately 3,144 cubic yards (CY) of cut and 4,409 CY of fill; thereby, requiring 1,265 CY of import. It is anticipated that the imported soil will come from a site within a 5-mile radius that has all environmental clearances.

Off-site improvements include new curbs and gutters along the frontages on Cottonwood Avenue.

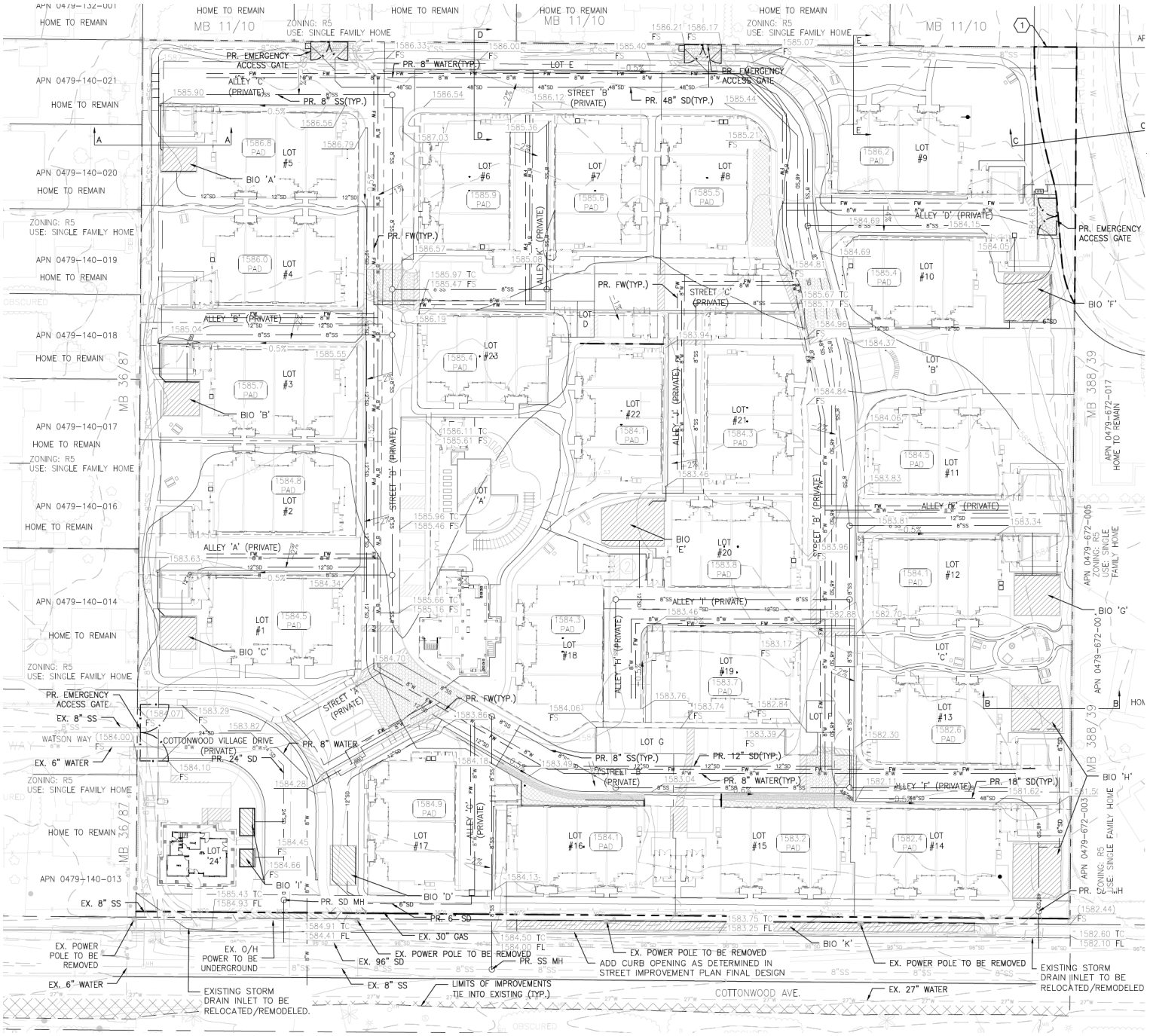
Reference **Figure 10, *Grading Plan***.

FIGURE 9
CONCEPTUAL LANDSCAPE PLAN



Source: Project Plans – (Appendix I)

FIGURE 10
GRADING PLAN



Source: Project Plans – (Appendix I)

Drainage and Water Quality

The Project site consists of an almost square shaped parcel, approximately 9 acres in size. The Project site is currently undeveloped and appears to have been graded in the past. Ground surface cover consists of exposed soil.

The site topography appears to have a low spot at the southeast corner of the property. There is an estimated 6 feet of elevation differential across the site. The existing flows drain into an existing inlet that is in the public right of way just north of Cottonwood Avenue. This inlet is the ultimate outfall of the site and is connected into the Riverside County Flood Control District Sunnymead Line P.

Cottonwood residential development will receive offsite flows. Along the northerly property line two streets Bencliff Avenue and Tacoma Dr. end. Topography appears to have those two streets drain north to south. A third street, Birchwood Dr., flows north to south as well. The Project is proposing to connect Birchwood Dr. to Cottonwood Ave. so drainage will continue through. Patricia Lane along the northeast property line is fully developed with curb and gutter. Block walls exist along the easterly property line.

The Project is proposed to use multiple biofiltration trenches throughout the Project, to mitigate added flows generated by the additional impervious surface. The Project will use minimal inlets and storm drainpipes where needed to direct the flow to the basin.

The *Hydrology Study* proposes a 24" storm drain connection to the existing 96" storm drain Line P in Cottonwood Avenue. This connection will require an encroachment permit from Riverside County Flood Control. The *Hydrology Study* addresses the existing capacity of the existing 96" storm drain and its confluence with the proposed 24" line.

The Project will increase the post Q amount. To mitigate the increase of flow coming from the Project, multiple biofiltration trenches will be used and have the capacity to store up to a volume of 9,795 c.f.

The Project offsite from areas OS-1 and OS-2 will routed through the Project site and into Sunnymead Line P in Cottonwood Avenue. OS-3 and OS-4 will also go into Sunnymead Line P in the proposed new connection to Sunnymead Line P in Watson Way.

For more specific details on the above-referenced OS and Lines, please see the Figures and discussion in Section 10., Hydrology and Water Quality, of this Initial Study.

14. **Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and Project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Description of Consultation is provided in Section 18, Tribal Cultural Resources.

15. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

- South Coast Air Quality Management District (SCAQMD)
- California Department of Fish and Wildlife (CDFW)
- Riverside County Flood Control and Water Conservation District (RCFCWCD)
- Regional Water Quality Control Board, Santa Ana Region (RWQCB)

16. **Other Technical Studies Referenced in this Initial Study (Also See Appendices List):**

a. Air Quality and Greenhouse Gas Impact Study – (**Appendix A**)
b. Biological – (**Appendix B**)
c. Cultural/Archaeological – (**Appendix C**)
d. Soils/Geotechnical – (**Appendix D1**)
e. Soils/Geotechnical Update – (**Appendix D2**)
f. Phase 1 Environmental Site Assessment – (**Appendix E**)
g. Drainage/Hydrology – (**Appendix F1**)
h. Project Specific Water Quality Management – (**Appendix F2**)
i. Noise Impact Study – (**Appendix G**)
j. Trip Generation Letter – (**Appendix H1**)
k. VMT Analysis – (**Appendix H2**)
l. Project Plans (**Appendix I**)
m. Site Photos (**Appendix J**)

17. **Acronyms:**

ADA -	American with Disabilities Act
ALUC -	Airport Land Use Commission
ALUCP -	Airport Land Use Compatibility Plan
AQMP -	Air Quality Management Plan
CEQA -	California Environmental Quality Act
CIWMD -	California Integrated Waste Management District
CMP -	Congestion Management Plan
DTSC -	Department of Toxic Substance Control
DWR -	Department of Water Resources
EIR -	Environmental Impact Report
EMWD -	Eastern Municipal Water District
EOP -	Emergency Operations Plan
FEMA -	Federal Emergency Management Agency
FMMP -	Farmland Mapping and Monitoring Program
GIS -	Geographic Information System
GHG -	Greenhouse Gas
GP -	General Plan
HCM	Highway Capacity Manual
HOA -	Home Owners' Association
IS -	Initial Study
LHMP -	Local Hazard Mitigation Plan
LOS -	Level of Service
LST -	Localized Significance Threshold
MARB -	March Air Reserve Base
MARB/IPA-	March Air Reserve Base/Inland Port Airport

MSHCP - Multiple Species Habitat Conservation Plan
MVFP - Moreno Valley Fire Department
MVPD - Moreno Valley Police Department
MVUSD - Moreno Valley Unified School District
MWD - Metropolitan Water District
NCCP - Natural Communities Conservation Plan
NPDES - National Pollutant Discharge Elimination System
OEM - Office of Emergency Services
OPR - Office of Planning & Research, State
PEIR - Program Environmental Impact Report
PW - Public Works
RCEH - Riverside County Environmental Health
RCFCWCD - Riverside County Flood Control & Water Conservation District
RCP - Regional Comprehensive Plan
RCTC - Riverside County Transportation Commission
RCWMD - Riverside County Waste Management District
RTA - Riverside Transit Agency
RTIP - Regional Transportation Improvement Plan
RTP - Regional Transportation Plan
SAWPA - Santa Ana Watershed Project Authority
SCAG - Southern California Association of Governments
SCAQMD - South Coast Air Quality Management District
SCE - Southern California Edison
SCH - State Clearinghouse
SKRHCP - Stephens' Kangaroo Rat Habitat Conservation Plan
SWPPP - Storm Water Pollution Prevention Plan
SWRCB - State Water Resources Control Board
USFWS - United States Fish and Wildlife
USGS - United States Geologic Survey
VMT - Vehicle Miles Traveled
VVUSD - Valley Verde Unified School District
WQMP - Water Quality Management Plan
WRCOG - Western Riverside Council of Government

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

☐	Aesthetics	☐	Agriculture & Forestry Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology & Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology & Water Quality	☐	Land Use & Planning	☐	Mineral Resources
☐	Noise	☐	Population & Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities & Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

III. DETERMINATION (To be completed by the Lead Agency):

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant" 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.

☐ 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.

Signature

Kirt Coury, Planning Consultant
Printed Name

2/16/22
Date

City of Moreno Valley
For

IV. EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or another CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analyses Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS – Except as provided in Public Resources Code §21099 – Modernization of Transportation Analysis for Transit-Oriented Infill Projects – **Would the project:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Public Resources Code Section 21099 pertains to "Modernization of Transportation Analysis for Transit-Oriented Infill Projects." The Project does not meet any of the criteria of a transit-oriented development. Therefore, the provisions of Public Resources Code Section 21099 are not applicable.

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 (e.g., development on a scenic hillside). The natural mountainous setting of the Menifee 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 of Moreno Valley (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.

Many of the scenic resources are outside the City limits. Scenic views from the City in general include: the Badlands and the higher San Jacinto Mountains to the east; the San Bernardino Mountains (from higher elevations in the City) to the north-northeast; Mt. Russell and the uplands surrounding Lake Perris to the southeast; and the Box Springs Mountain area to the north and northwest.

Land uses surrounding the site are all existing residential development although there is a church and some deep residential lots south of the site across Cottonwood Avenue with truck and vehicle-related uses. Residential uses adjacent to the site are mainly large one-story residences although there are some two-story residences near the southeast corner of the site. Reference **Figure 1, *Regional Location Map***, **Figure 2, *Vicinity Map***, and **Figure 6, *Aerial Photo***, provided in Section I of this Initial Study. The Project site is relatively flat with an average elevation of 1,580 feet above mean sea level (AMSL) in the center of the site.

Table 1, *Project Site and Surrounding Land Uses*, lists the different uses that are located immediately adjacent to the proposed Project site. Also, please reference **Figure 3, *Existing and Proposed General Plan Land Use Designations***, and **Figure 4, *Existing and Proposed Zoning Classifications***, provided in Section I of this Initial Study.

The proposed townhouse Project will have Craftsman design elements, in two complementary styles, and will be generally consistent with the surrounding development. The surrounding General Plan land use and zoning designations of the site and surrounding area are shown in the previous **Figure 3** and **Figure 4**.

Views of the site from public areas (streets, sidewalks) are currently of vacant open land that is relatively flat. The Project will change the visual character of the Project

site by adding 23 two-story 4-plex townhouse buildings with supporting parking and landscaping. The 4-plex buildings will distributed throughout the Project site as shown in **Figure 5, *Site Plan***. Elevations of the proposed Project units are shown in the previous **Figure 8, *Elevations***.

The Tentative Tract Map and condo plan shows there will be six 4-plex buildings along each of the east, north, and west boundaries of the site, and the buildings will be of similar size to many of the large single-family homes adjacent to the site. However, all of the 4-plex buildings will be two-story and most of the existing adjacent single-family residences are one-story except four two-story homes near the southeast portion of the site. The Project will also include associated street, utility, parking, and landscaping improvements.

The Project is located within an urbanized portion of the City comprised of mainly residential uses but also contains commercial and institutional uses. This Project site is not considered to be within or to comprise a portion of a designated or identified scenic vista within the City.

With implementation of the Tentative Tract Map as proposed, the Project will not have adverse impact to a scenic vista. Impacts will be less than significant, and no mitigation is required.

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

Response: *Less Than Significant Impact*

Public Resources Code Section 21099 pertains to "Modernization of Transportation Analysis for Transit-Oriented Infill Projects." The Project does not meet any of the criteria of a transit-oriented development. Therefore, the provisions of Public Resources Code Section 21099 are not applicable.

There are state-designated scenic highways in or near the City. However, State Route 60 (SR-60) which passes east-west through the northern part of the City is a little less than a mile north of the site and is considered an "Eligible State Scenic Highway – Not Officially Designated" by the California Department of Transportation (*Caltrans 2021*). The closest state-designated state scenic highways to the City are Highway 38 through Mentone from the I-10 Freeway in Redlands (9.2 miles north) and Highway 74 at I-215 through Perris and Hemet (9.8 miles southwest).

SR-60 is also a City-designated scenic route[1] approximately 0.9 mile north of the Project site. However, the proposed Project would not be readily visible to travelers along the SR-60 Freeway. Travelers in the eastbound lanes might have at least a partial view of the two-story Project buildings for approximately 4-8 seconds depending on freeway speeds at the time they passed the Perris Boulevard freeway ramps. Travelers in the westbound lanes would not have a view of the Project as

[1] Chapter 7 – Conservation, City of Moreno Valley General Plan, May 2021

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

views would be blocked by the median and vehicles in the eastbound lanes of the freeway. Any views from the freeway would be extremely brief and difficult due to the distance and viewing angle to the site from the freeway, and the Project would not have substantially taller buildings than the surrounding neighborhoods (i.e., the entire Project area is urbanized).

The Project site is vacant and does not contain any buildings, including historic buildings, and there are no large trees on the site. Based on existing topography and the location and elevations of proposed uses, the Project site will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Impacts will be less than significant, and no mitigation is required.

c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from 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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

As discussed in Sections 1.a and 1.b, development of the proposed Project will change views of the site and views from surrounding developed areas. The surrounding area is fully urbanized with suburban residential uses and other supporting uses.

The Project site is designated for development at a density of 15 up to 25 units per acre (COMU). Adjacent residential uses are developed at densities of up to 5 units per acre (R5) although there are areas of higher residential densities (R10 and R15) distributed throughout the surrounding area in this portion of the City.

Regarding long-term views, the proposed Project would convert approximately 9 acres of existing vacant land to suburban residential development similar in appearance to but at a higher density than existing residential uses all around the site. As discussed in Section 1.b, the two-story buildings of the Project may be visible to travelers on the 60 Freeway north of the site for a brief period of time. The Project would be visible to drivers and pedestrians on Cottonwood Avenue proximate to the site. It should be noted the entire Project area is already completely urbanized.

Various views of the proposed Project from different vantage points are provided in the *Site Photos* provided in the IS Appendices. These renderings demonstrate that while the change in views will be substantial relative to the existing vacant land, the Project will be similar in appearance and style to other residential development in the surrounding area, despite its higher density. The maximum building height for this Project is 30 feet which is consistent with two-story residential structures in the City.

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

In addition to long-term impacts, the construction phase of the Project would introduce the use of machinery such as excavators and bulldozers. The presence of the construction equipment, as well as the construction activities, would temporarily alter the visual character of the Project site. Construction staging areas, including earth stockpiling, storage of equipment and supplies, and related activities would contribute to its appearance as a disturbed site, which would be a short-term visual impact.

New development proposed as part of this Project would comply with the design guidelines and the development requirements of the Corridor Mixed Use (COMU) land use designation in the General Plan and the COMU /zoning classification in the City Municipal Code where appropriate. Therefore, the Project will not substantially degrade the existing visual character or quality of public views of the site and its urban surroundings. Impacts will be less than significant, and no mitigation is required.

d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

There are no sources of light on the Project site at present, but the surrounding area is completely suburbanized with many light sources from existing residential and other urban development.

Construction

New lighting sources will create additional short-term light and glare associated with construction activities. These additional artificial light sources are typically associated with security lighting since all exterior construction activities are limited to daylight hours in the City. Workers either arriving to the site before dawn, or leaving the site after dusk, will generate additional construction light sources. Due to the size of the Project, construction will occur in one phase over approximately eleven months. These impacts will be temporary, of short-duration, and will cease when Project construction is completed. For these reasons, and because there are limited numbers of construction workers, temporary light and glare impacts are considered less than significant.

Occupancy

Excessive or inappropriately directed lighting can adversely impact nighttime 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). There are lighting sources adjacent to this site, including free-standing streetlights, light fixtures on buildings, vehicle headlights, traffic lights and streetlights.

The proposed Project will include outdoor lighting associated with security and safety of the residents and visitors. By design per the Municipal Code, lighting

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

associated with the Project would not be directed towards any of the surrounding uses.

This portion of the City does not have relatively dark skies due to the intrusion of lights from many surrounding sources (e.g., houses, roadways, etc.). However, the City has a standard condition of approval (COA) requiring each tentative tract map and development plan to provide a photometric plan to help assure all future development will meet the City's "dark sky" requirements. The photometric plan will have to show that any light at the boundary of adjacent residential uses must be below 1.0 foot-candle so it will not negatively impact adjacent uses. In addition, another COA requires new construction to comply with the City's General Plan and Municipal Code requirements in terms of security and night lighting. These COAs are considered regulatory compliance and not unique mitigation under CEQA.

The preceding demonstrates the Project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Any impacts will be less than significant with implementation of the City's standard COAs and Municipal Code requirements regarding outdoor lighting.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning, Moreno Valley Municipal Code
   Chapter 9.08.100 - Lighting
   Chapter 9.16 – Design Guidelines
   Chapter 9.17.030 G – Heritage Trees
4. *Site Photos*, prepared by Project Team, 2021 (**Appendix J**)
5. Project Plans (**Appendix I**)
6. California Department of Transportation (Caltrans). Map of Scenic Highways. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983

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

Would the project:

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	☐	☐	☐	☒

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the California Resources Agency, to non-agricultural use?				

Response: *No Impact*

The Project site is in an urbanized area of the City of Moreno Valley in western Riverside County. According to the Web Soil Survey Website, soils underlying the Project site are classified mainly as Ramona fine sandy loam (RaB2) on 92% of the site with Pachappa fine sandy loam (PaC2) on 8% of the site. The United States Department of Agriculture (USDA) considers these soils to be agriculturally productive with irrigation (WSS 2021).

According to the Phase I ESA prepared for the Project, the site has been vacant and undeveloped since at least 1938 while the surrounding properties have been vacant land or utilized for residential development since at least 1938. The residential development to the west and north of the Site dates to sometime around 1959. The site and surrounding area are underlain by deep alluvial materials washed down out of the surrounding uplands.

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land use and to help preserve areas of Important Farmland. It divides the state's land into eight categories based on soil quality and existing agricultural uses to produce maps and statistical data. These are used to help preserve productive farmland and to analyze impacts on farmland.

According to the FMMP website ("Important Farmland Finder"), the Project site is classified as "Urban and Built Up Land" and there are no prime or other designated Farmland in the immediate area. While the Project site and surrounding areas are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, there are some isolated areas of land designated as Prime Farmland or Unique Farmland in the general surrounding area, mainly east and northeast of the site along the SR-60 Freeway corridor in the more rural areas of the City (*FMMP 2021*).

Therefore, the proposed Project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance although there are isolated areas of designated Farmland in the general surrounding area. No impact will occur.

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

Response: *No Impact*

The Project site is zoned COMU and there are no agricultural or related zoning in the surrounding area (i.e., all are urban residential and related zones). No impact will occur. In addition, no Williamson Act contracts are active for the proposed Project site or on adjacent surrounding lands. Therefore, the Project will not conflict with a Williamson Act contract. No impact will occur.

c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland	☐	☐	☐	☒

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				

Response: *No Impact*

Public Resources Code Section 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 defined or being managed or used as forest land as identified in Public Resources Code Section 12220(g). In addition, the Project site and surrounding area do not contain large numbers of trees that would constitute urban forestry or any forest-related resources (*GoogleEarth 2021*). Finally, the California Department of Forestry and Fire Protection (CALFIRE) website shows the Project site is not on the state's inventory of forest land (*Calfire 2021*). Therefore, no impact will occur.

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

Response: *No Impact*

As discussed in Threshold 2.c, there is no forest land on or adjacent to the Project site. Therefore, there will be no loss of forest land or conversion of forest land to non-forest use as a result of the Project. No impacts will occur.

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

Response: *No Impact*

As discussed in Threshold 2.a, there are no designated Farmlands, agriculturally zoned lands, or current agricultural uses adjacent to the Project site. There are also no properties used exclusively for agriculture around the Project site. As discussed in Threshold 2.c, there is no forest land on or near the Project site. Therefore, the Project will not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. No impact will occur.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. **Table 1, *Project Site and Surrounding Land Uses*** and **Figure 3*, Existing General Plan Land Use Designation***, provided in Section I of this Initial Study

4. *Phase I Environmental Site Assessment*, prepared by GeoTek, Inc., 12-23-2020 (*Phase I ESA*, **Appendix E**)
5. California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP). https://maps.conservation.ca.gov/DLRP/CIFF/ [Website accessed June 2021] (*FMMP 2021*)
6. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/ [Website accessed June 2021] (*WSS 2021*)
7. GoogleEarth https://www.google.com/earth/ [Website accessed June 2021] (*GoogleEarth 2021*)
8. California Department of Forestry and Fire Protection (Calfire), State Inventory of Forest Land. https://www.fire.ca.gov [Website accessed June 2021] (*Calfire 2021*)

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:**

SUBSTANTIATION: An Air Quality Impact Analysis (AQIA) was prepared for the proposed project; it is provided as **Appendix A** to this Initial Study.

Background

The project is located in Moreno Valley. The climate of the Moreno Valley area, technically called an interior valley sub-climate of Southern California's semi-arid climate, is characterized by warm summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and the fog that form along the region's coastline rarely extend as far inland as the San Jacinto Valley, and if they do, they usually burn off quickly after sunrise. The most important weather pattern is associated with the warm season airflow across populated areas of the Los Angeles Basin that brings polluted air into western Riverside County late in the afternoon. This transport pattern creates unhealthful air quality when the fringes of this "urban smog cloud" extend to the project site during the summer months.

The ambient concentrations of air pollutants are determined by the amount of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources.

Temperatures in Moreno Valley average a very comfortable 65ºF year-round, with warm summer afternoons (95+ degrees) and often cool winter mornings (35 degrees). Rainfall in the project area can vary considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April with summers often completely dry. Rainfall in the area averages 12.5 inches per year but varies markedly from one year to the next.

Because the State of California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California and the nation are shown

in **Table 3-1, *Ambient Air Quality Standards***. Sources and health effects of various pollutants are shown in **Table 3-2, *Health Effects of Major Criteria Pollutants***.

Table 3-1
Ambient Air Quality Standards

Pollutant	Average Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter (PM2.5)[9]	24 Hour	–	–	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15.0 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Flourescense; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead 8[12,13]	30-Day Average	1.5 µg/m^3	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m^3		

Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence	
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography	

Footnotes

1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above 150 µg/m^3, is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25℃ and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25℃ and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

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

7 Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9 On December 14, 2012, the national PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primarily and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11 On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 j.tg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Table 3-2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.

Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Baseline Air Quality

There are no baseline air quality data available directly from the proposed project site. Long-term air quality monitoring for ozone, nitrogen oxides, and 10-micron diameter particulate matter (PM-10) is carried out by the South Coast Air Quality Management District (SCAQMD) at Perris, but the closest data resource for some gaseous and/or particulate species is in Riverside. **Table 3-3, *Air Quality Monitoring Summary (2016-2019)*** summarizes the last four years of currently available monitoring data from the SCAQMD.

a. Photochemical smog (ozone) levels occasionally exceed standards. The 8-hour state ozone standard has been exceeded 18 percent of all days, the 1-hour state standard has been exceeded 8 percent of all days. The 8-hour federal standard has been exceeded 11 percent of all days in the past four years. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

b. Carbon monoxide measurements at the Riverside Rubidoux station fluctuate but the maximum 8-hour CO levels at the closest air monitoring station are less than the 25 percent of their most stringent standards because of continued vehicular improvements. These data suggest that baseline CO levels in the project area are generally healthful and can accommodate a reasonable level of additional traffic emissions before any adverse air quality effects would be expected.

c. Respirable dust (PM 10) levels exceed the state standard on approximately 9 percent of measurement days, but the less stringent federal PM 10 standard has not been violated once for the same period. Particulate levels have traditionally been high in

Riverside County because of agricultural activities, dry soil conditions and upwind industrial development.

d. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Slightly more than one percent of all days exceeded the current national 24-hour standard of 35 □g/m3 from 2016-2019. However, both the frequency of violations of particulate standards, as well as high percentage of PM-2.5, are air quality concerns in the project area.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

As stated above, **Table 3-3, *Air Quality Monitoring Summary (2016-2019)*** summarizes the last four years of currently available monitoring data from the SCAQMD.

Table 3-3
Air Quality Monitoring Summary (2016-2019)
(Number of Days Standards Were Exceeded, and Maximum Levels During Such Violations)

Pollutant/Standard	2016	2017	2018	2019
Ozone				
1-Hour > 0.09 ppm (S)	23	33	31	26
8-Hour > 0.07 ppm (S)	55	80	67	64
8- Hour > 0.075 ppm (F)	30	52	47	38
Max. 1-Hour Conc. (ppm)	0.131	0.120	0.117	0.118
Max. 8-Hour Conc. (ppm)	0.098	0.105	0.103	0.095
Carbon Monoxide				
1-Hour > 20. ppm (S)	0	0	0	0
1-Hour > 9. ppm (S, F)	0	0	0	0
Max 8-Hour Conc. (ppm)	1.4	1.7	2.0	1.2
Nitrogen Dioxide				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.064	0.063	0.055	0.056
Inhalable Particulates (PM-10)				
24-Hour > 50 $\mu g/m^3$ (S)	5/57	11/59	3/60	4/61
24-Hour > 150 $\mu g/m^3$ (F)	0/57	0/59	0/60	0/61
Max. 24-Hr. Conc. ($\mu g/m^3$)	76.	75.	64.	97.
Ultra-Fine Particulates (PM-2.5)				
24-Hour > 35 $\mu g/m^3$ (F)	4/357	6/353	2/354	4/352
Max. 24-Hr. Conc. ($\mu g/m^3$)	39.1	50.3	64.8	46.7

S=State Standard
F=Federal Standard
Source: South Coast AQMD
Perris Air Monitoring Station- Ozone and PM-10
Rubidoux Air Monitoring Station – Carbon Monoxide, Nitrogen Dioxide and PM-2.5

Air Quality Planning

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, PM2.5, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the California Air Resources Board (CARB).

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). The most current regional attainment emissions forecast for ozone precursors (ROG and NOx) and for carbon monoxide (CO) and for particulate matter are shown in **Table 3-4, *South Coast Air Basin Emissions Forecasts (Emissions in tons/day)***. Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The SCAQMD adopted an updated clean air "blueprint" in August 2003. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated. With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. The attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

Table 3-4
South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2020[a]	2025[a]	2030[a]
NOx	289	266	257
VOC	393	393	391
PM-10	165	170	172
PM-2.5	68	70	71

[a]With current emissions reduction programs and adopted growth forecasts.
Source: California Air Resources Board, 2013 Almanac of Air Quality

AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board in March 2017 and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NOx, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 $\mu g/m^3$)	2025
8-hour ozone (75 ppb)	2024 (old standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)
24-hour PM-2.5 (35 $\mu g/m^3$)	2019

The key challenge is that NOx emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NOx control measures are adopted and implemented, ozone attainment goals may not be met.

The South Coast AQMD has initiated the development of the 2022 AQMP but it is still in development. The proposed project does not relate to the AQMP in that there are no specific air quality programs or regulations governing residential projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

Significance Thresholds Used in This Document

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it:

a) Conflict with or obstruct implementation of the applicable air quality plan?
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
c) Expose sensitive receptors to substantial pollutant concentrations?
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines.

Table 3-5, *Daily Emissions Thresholds* outlines the SCAQMD daily emissions thresholds for construction and operations of a given project. These thresholds are used to determine whether a project will result in a significant air quality impact.

Table 3-5
Daily Emissions Thresholds

Pollutant	Construction[1]	Operations[2]
ROG	75	75
NOx	100	100
CO	550	550
PM-10	150	150
PM-2.5	55	55
Sox	150	150
Lead	3	3

[1] Construction thresholds apply to both the SCAB and the Coachella Valley (Salton Sea and Mojave Desert Air Basins.
[2] For Coachella Valley the mass daily emissions thresholds for operation are the same as the construction daily emissions thresholds.
Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

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

Response: ***Less Than Significant Impact***

Projects such as the proposed Cottonwood Village Project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use are the primary yardsticks by which impact significance of planned growth is determined. Based on the analysis of the City's General Plan Land Use section, the proposed project is consistent with the adopted City's General Plan. Thus, the proposed project is consistent with regional planning forecasts maintained by the SCAG regional plans. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less than significant only because of consistency with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.

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

Response: ***Less Than Significant With Mitigation Incorporated***

Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions include fugitive dust from

construction activities (i.e., site prep, demolition, grading) and exhaust emissions at the project site. Long-term emissions would be associated with activities associated with and trips generated by future residents of the 92 3-bedroom townhouses.

Construction Emissions

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The project site is located north of Cottonwood Avenue and east of Perris Boulevard in the City of Moreno Valley and proposes 92 multifamily dwelling units. The site is currently vacant and is anticipated to require 1,265 CY or earthwork import from a 5-mile one-way trip distance.

Estimated construction emissions were modeled using CalEEMod2016.3.2 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled in CalEEMod2016.3.2 using default construction equipment and schedule for a project of this size as shown in **Table 3-6, *Construction Activity Equipment Fleet***.

Table 3-6
Construction Activity Equipment Fleet

Phase Name and Duration	Equipment
Grading (20 days) 1,265 CY earthworks import.	1 Grader
	1 Excavator
	1 Dozer
	3 Loader/Backhoes
Construction (230 days)	1 Crane
	1 Generator Set
	3 Loader/Backhoes
	1Welder
	3 Forklifts
Paving (20 days)	2 Pavers
	2 Paving Equipment
	2 Rollers

Utilizing the indicated equipment fleet and durations shown in **Table 3-6** the following worst-case daily construction emissions are calculated by CalEEMod and are listed in **Table 3-7, *Construction Activity Emissions Maximum Daily Emissions (Pounds/Day)***.

Table 3-7
Construction Activity Emissions Maximum Daily Emissions (Pounds/Day)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2022	2.1	22.2	19.6	0.0	3.7	2.2
2023	29.6	15.7	19.2	0.0	1.7	0.9
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated be below SCAQMD CEQA thresholds without the need for added mitigation. Emissions assume required mandatory watering of exposed dirt surfaces three times daily during grading per the SCAQMD Rule 403. However, though construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. As such, **Mitigation Measure MM-AQ-1** shall be implemented.

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. As such, **Mitigation Measure MM-AQ-2** shall be implemented:

With incorporation of these mitigation measures, any impacts related to construction emissions are considered less than significant. No further mitigation is required.

Operational Emissions

The proposed residential uses will generate 674 daily trip-ends per the traffic study prepared for this project. Operational emissions were calculated using CalEEMod2016.3.2 for an assumed full occupancy year of 2023. The operational impacts are shown in **Table 3-8, *Proposed Uses Daily Operational Impacts Operational Emissions (Pounds/Day)***.

Table 3-8
Proposed Uses Daily Operational Impacts
Operational Emissions (Pounds/Day)

Source	ROG	NOx	CO	SO_2	PM-10	PM-2.5
Area*	2.4	1.5	8.2	0.0	0.2	0.2
Energy	0.1	0.5	0.2	0.0	0.0	0.0
Mobile	0.2	6.0	15.7	0.1	4.9	1.3
Total	**3.6**	**8.0**	**21.7**	**0.1**	**5.1**	**1.5**
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

*assumes use of gas hearths if any (not wood burning)
Source: CalEEMod Output in Appendix

As shown, operational emissions will not exceed applicable SCAQMD operational emissions CEQA thresholds of significance.

As shown, operational emissions will not exceed applicable SCAQMD operational emissions CEQA thresholds of significance. However, the project shall require incorporation of **Mitigation Measures MM-AQ-1** through **MM-AQ-5** to further reduce operational air quality emissions.

Conclusion

With the incorporation of **Mitigation Measures MM-AQ-1** through **MM-AQ-5**, the development of the Cottonwood Village Project would have a less than significant potential to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200- and 500-meter source-receptor distances. The nearest residence is to the northwest, across the 215 freeway, approximately 2,500 feet from the site along Scenic Drive. Therefore, a 500-meter source-receptor distance was modeled.

LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites for varying distances. For this project, the most stringent thresholds for a 1-acre site were applied. The following thresholds and emissions in **Table 3-9, *Proposed Uses Daily Operational Impacts Operational Emissions (Pounds/Day)*** are therefore determined (pounds per day):

Table 3-9
Proposed Uses Daily Operational Impacts
Operational Emissions (Pounds/Day)

LST 1 acre/25 meters: Perris Valley	CO	NOx	PM-10	PM-2.5
LST Thresholds	602	118	4	3
Max On-Site Emissions				
2022	20	22	4	2
2023	19	16	2	1

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in **Table 3-9**, LST impacts are less than significant.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure. Therefore, with the implementation of **Mitigation Measures MM-AQ-1** through **MM-AQ-5**, the proposed project would have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

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

Response: ***Less Than Significant Impact***

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include Agricultural uses (livestock and farming); Wastewater treatment plants; Food processing plants; Chemical plants; Composting operations; Refineries; Landfills; Dairies; and Fiberglass molding facilities. The project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short- term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors and other emissions associated with the proposed project construction and operations would be less than significant and no mitigation is required.

Mitigation Measures

MM-AQ-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- Apply soil stabilizers to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Apply water to disturbed surfaces and haul roads 3 times/day.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.
- Identify proper compaction for backfilled soils in construction specifications.

This measure shall be implemented during construction and shall be included in the construction contract as a contract specification.

MM-AQ-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.
- Contactors shall utilize Tier 4 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

MM-AQ-3 Maximize the planting of trees in landscaping and parking lots consistent with water availability.

MM-AQ-4 Use light colored paving and roofing materials.

MM-AQ-5 Utilize only Energy Star heating, cooling, lighting devices, and appliances, where applicable.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
   Section 9.10.050 – Air Quality of the Moreno Valley Municipal Code
   Section 9.10.150 – Odors of the Moreno Valley Municipal Code
   Section 9.10.170 – Vibration of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Section 12.50.040 – Limitations on Engine Idling
5. *Air Quality and GHG Impact Analysis*, prepared by Giroux & Associates, 6-10-2021 (**Appendix A**)

4. BIOLOGICAL RESOURCES – Would the project:

SUBSTANTIATION: A biological resources assessment (BRA) and multiple-species habitat conservation plan (MSHCP) consistency analysis has been prepared for the project titled "Cottonwood Village Development Project: Biological Resources Assessment, Jurisdictional Delineation Report, and MSHCP Consistency Analysis" prepared by Jacobs Engineering Group, Inc., dated June 2021 (*Biological Resources Assessment*, **Appendix B**). The following summary information has been abstracted from this report.

Summary of Findings

Introduction

The purpose of the BRA is to address potential effects of the project to designated Critical Habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS). As part of the BRA, the project site was also assessed to determine the extent (if any) of State and federal jurisdictional waters (i.e. Waters of the U.S. and Waters of the State) within the project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1602 of the California Fish and Game Code (FGC), respectively. In addition to the BRA, Jacobs prepared a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis, which is included in the scope of this report. As part of the City of Moreno Valley's approval process, a Western Riverside County MSCHP compliance report is required. The purpose of this report is to assess whether the proposed project is consistent with the conditions and provisions identified in the MSCHP.

Environmental Setting

The project area lies in the geographically based ecological classification known as the Inland Valleys – Level IV ecoregion, of the Southern California/Northern Baja Coast – Level III ecoregion. The Inland Valleys ecoregion is a heavily urbanized ecoregion that historically consisted of the alluvial fans and basin floors immediately south of the San Gabriel and San Bernardino Mountains. The project area is situated in Moreno Valley, just west/southwest of the Badlands. The topography of the project area consists of flat urban landscape, comprised of vacant land and surrounding residential and commercial development. The elevation of the project site is approximately 1,590 feet above mean sea level (amsl).

Hydrologically, the project area is situated within the Perris Valley Hydrologic Sub-Area (HSA 802.11). The Perris Valley HSA comprises a 106,456-acre drainage area, within the larger San Jacinto Watershed (HUC 18070202). The San Jacinto River is the major hydrogeomorphic feature within the San Jacinto Watershed. The nearest tributary to the San Jacinto River is an unnamed, man-made flood control channel, which flows southward through the City of Moreno Valley, approximately 0.5 miles east of the project site at its closest point.

Soils within the project site are comprised of Ramona sandy loam, 2 to 5 percent slopes (eroded) and Pachappa fine sandy loam, 2 to 8 percent slopes (eroded) soils. Ramona sandy loam soils consist of sandy loam, fine sandy loam, sandy clay loam, to gravelly sandy loam comprised of alluvium derived from granite. This soil is well-drained, with a low runoff class and does not have a hydric soil rating. Pachappa fine sandy loam soils consist of fine sandy loam and loam comprised of alluvium derived from granite. This soil is well-drained, with a medium runoff class and does not have a hydric soil rating.

Sensitive Biological Resources

A reconnaissance level BRA survey of the project site was conducted by Jacobs in June of 2021 to identify potential habitat for special status wildlife within the project area. No sensitive species were observed within the project area during the reconnaissance-level field survey and due to the environmental conditions on site, none are expected to occur. The project site is completely disturbed and no longer supports any native habitats. Existing disturbances within the project site include periodic disking, dumping, and litter. Due to the environmental conditions on site and the adjacent disturbances, the project site is likely not suitable to support any of the listed species that have been documented in the project vicinity (within approximately 3 miles).

Critical Habitat and MSHCP Consistency

The project area does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the project will not result in any loss or adverse modification of Critical Habitat. Additionally, the project site is not within or adjacent any MSHCP Criteria Cells or Cell Groups and the project will not impact any MSHCP Conservation Areas. Furthermore, the project site is not mapped within any required survey areas for amphibians, mammals, invertebrates, Narrow Endemic Plants Species, or other Criteria Area Species.

Burrowing Owl

The project site is within an MSHCP Burrowing Owl Survey Area. Therefore, a burrowing owl (BUOW) habitat suitability assessment was conducted by Jacobs in June of 2021 that included 100 percent visual coverage of any potentially suitable BUOW habitat within the project area. The result of the survey was that no evidence of BUOW was found in the survey area. No BUOW individuals or sign including castings, feathers, whitewash, burrows, burrow surrogates, or appropriately sized fossorial mammal dens were observed within the survey area and BUOW are considered absent from the project area at the time of survey. Although the project is not likely to adversely affect this species, there is still a low potential for the project site to become occupied by BUOW between the time the survey was conducted and the commencement of project-related construction activities.

The BUOW is a state and federal SSC and is also protected under the Migratory Bird Treaty Act (MBTA) and by state law under the FGC (FGC #3513 & #3503.5). In general, impacts to BUOW can be avoided by conducting work outside of their nesting season (peak BUOW breeding season is identified as April 15th to August 15th). However, if all work cannot be conducted outside of nesting season, a project specific BUOW protection and/or passive relocation plan can be prepared to determine suitable buffers and/or artificial burrow construction locations pursuant to guidelines and authorization from the appropriate regulatory agencies, including CDFW and/or USFWS.

Nesting Birds

There is habitat within the project area of potential effect (APE) that is suitable to support nesting birds, including both natural and urban environments. Most native bird species are protected from unlawful take by the MBTA. In December 2017, the Department of the Interior (DOI) issued a memorandum concluding that the MBTA's prohibitions on take apply "[...] only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs." Then in April 2018, the USFWS issued a guidance memorandum that further clarified that the take of migratory birds or their active nests (i.e., with eggs or young) that is incidental to, and not the purpose of, an otherwise lawful activity does not constitute a violation of the MBTA. However, the State of California provides additional protection for native bird species and their nests in the CDFW FGC.

In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through September 1st. However, if all work cannot be conducted outside of nesting season, mitigation is recommended.

Jurisdictional Waters

In addition to the BRA and BUOW habitat suitability assessment survey, Jacobs also assessed the project site for the presence of any state and/or federal jurisdictional waters. The result of the jurisdictional waters assessment is that there are no wetland or non-wetland waters of the United States (WOTUS) or waters of the State potentially subject to regulation by the USACE under Section 404 of the CWA, the RWQCB under Section 401 of the CWA and/or Porter Cologne Water Quality Control Act, or the CDFW under Section 1602 of the California FGC, respectively.

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

MSHCP Consistency Analysis

The project is consistent with the MSHCP policies found in Section 6 of the MSHCP, which include Riparian/Riverine Areas/Vernal Pools, Narrow Endemic Plant Species, Criteria Area Species, Urban/Wildlands Interface, and Surveys for Special Status Species (BUOW). The project site is within the Western Riverside County MSHCP boundary but is not within or adjacent any MSHCP Criteria Cells or Cell Groups. Therefore, implementation of the MSHCP Section 6.1.4 Guidelines Pertaining to the Urban/Wildlands Interface is not required. The project proponent should be prepared to pay the MSHCP fees and restrict all project related impacts to existing right-of-way and/or other areas outside of Conserved Lands. No conservation or avoidance measures are expected, and the project as described, is consistent with the Reche Canyon/Badlands Area Plan conservation criteria and overall conservation goals and objectives set forth in the MSHCP.

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?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

Implementation of the project does not have a potential for a significant adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. As discussed above, the proposed project does contain habitat suitable for burrowing owl within the project site; however, protocol-level presence/absence surveys that were conducted in June of 2021 indicate that no burrowing owl individuals or sign were observed during the surveys. Furthermore, no burrowing owl individuals or sign were observed during the BRA survey conducted by Jacobs in June of 2021. Therefore, BUOW are considered absent from the project area at the time of survey and the project is not likely to impact this species. However, the following precautionary avoidance measure (**Mitigation Measure MM-BIO-1**) is recommended to ensure the project does not result in any impacts to BUOW.

The BUOW is a state and federal SSC and is also protected under the MBTA and by state law under the California FGC (FGC #3513 & #3503.5). In general, impacts to BUOW can be avoided by avoiding occupied burrows and conducting work outside of their nesting season. However, if all work cannot be conducted outside of nesting season and occupied burrows cannot be avoided, the following measure (**Mitigation Measure MM-BIO-2**) shall be required.

This is a contingency mitigation measure since the site does not contain any evidence of burrowing owls at present. This measure will ensure that any burrowing owl that may come to inhabit the site between the date of the BRA survey and the start of construction. Given that no other State- and/or federally-listed threatened or endangered species, or other sensitive species are anticipated to occur within the project site based on the results of the BRA, the proposed project would have a less than significant potential to have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
in local or regional plans, policies, or regulations, or by the CDFW or USFWS with implementation of **Mitigation Measures MM-BIO-1** and **MM-BIO-2**.				
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 U.S. Fish and Wildlife Service?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Implementation of the proposed project will not have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. The project site is completely disturbed, consisting mostly of disked bare ground, and no longer supports any native habitat. Sparse vegetation cover within the project site is dominated by non-native, invasive species, consisting primarily of field bindweed (*Convolvulus arvensis*) and non-native grasses including slim oat (*Avena barbata*), brome grasses (*Bromus* spp.), Bermuda grass (*Cynodon dactylon*), Italian rye grass (*Festuca perennis*), and foxtail barley (*Hordeum murinum*). The nearest Critical Habitat unit is approximately 2.5 miles north of the project site. This Critical Habitat unit is part of the San Timoteo Creek Unit of USFWS designated Critical Habitat for the federally listed as endangered southwestern willow flycatcher (*Empidonax traillii extimus*). However, no portion of the project site is within or adjacent this Critical Habitat unit, or any other Critical Habitat. According to the CNDDB, the nearest sensitive habitat is Southern Sycamore Alder Riparian Woodland located within Reche Canyon, approximately 3.8 miles north of the Subject Parcel.

As such and as stated above under Critical Habitat and MSCHP Consistency, the project site does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the project will not result in any loss or adverse modification of Critical Habitat. No Riparian/Riverine areas were found within the project site. There are no natural or man-made streams or other aquatic or riparian habitats within the project site. Based on the field survey conducted by Jacobs, and the information contained in the *Biological Resources Assessment*, the proposed project has a less than significant potential to impact to riparian habitat or other sensitive communities are anticipated to occur as a result of implementation of the proposed project. No mitigation is required.

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?	☐	☐	☐	☒

Response: ***No Impact***

Areas meeting all three wetland parameters (i.e., hydrophitic vegetation, hydric soils, and wetland hydrology) and are adjacent to other jurisdictional waters would be designated as USACE wetlands. The project site does not support any hydrophitic vegetation, including within any of the ephemeral swales on site. Thus, there are no wetland or non-wetland WOTUS within the project site and the project will not result in any permanent or temporary impacts to WOTUS. Therefore, the project would be exempt from CWA Section 404/401 permitting.

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Additionally, the man-made ephemeral swales that are present within the project site do not meet the CDFW definition of a lake, river or stream and do not support any aquatic resources, stream-dependent wildlife resources or riparian habitats. Additionally, none of these features has a definable bed and bank. Therefore, the project will not result in any permanent or temporary impacts to jurisdictional waters of the State and the project would be exempt from FGC Section 1602 permitting as well.

Therefore, implementation of the proposed project will have no potential to impact state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No mitigation is required.

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

Response: ***Less Than Significant With Mitigation Incorporated***

Based on the field survey of the project site, the project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors or impede the use of native nursery sites. The State protects all migratory and nesting native birds. The only wildlife species observed or otherwise detected during the reconnaissance-level survey were birds, including American kestrel (*Falco sparverius*), house sparrow (*Passer domesticus*), Cassin's kingbird (*Tyrannus vociferans*), and mourning dove (*Zenaida macroura*). Thus, the project area may include locations that function as nesting locations for native birds. To avoid impacting nesting birds as required by the MBTA and California FGC, **Mitigation Measure MM-BIO-3** shall be implemented.

Thus, with implementation of the above measure, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact.

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

Response: ***Less Than Significant Impact***

Development of the proposed project would have a less than significant potential to conflict with any local policies or ordinances protecting biological resources. Impacts to biological resources have been addressed above under issues 4(a-d). Past site disturbance has eliminated any potential for other biological resources that might be protected to exist within the site. Therefore, the potential for the project to conflict with local policies or ordinances pertaining to biological resources would be considered less than significant, and no mitigation is required.

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

Response: ***Less Than Significant With Mitigation Incorporated***

The project site is located within the MSHCP's Reche Canyon/Badlands Area Plan. According to the Western Riverside County Regional Conservation Authority's online

MSHCP Information Tool query, the Subject Parcel is within the San Timoteo Habitat Management Unit (HMU) but is not mapped within or adjacent a Criteria Cell or Cell Group, and therefore not targeted for conservation. Furthermore, the project site is not mapped within any required survey areas for amphibians, mammals, invertebrates, Narrow Endemic Plants Species, or other Criteria Area Species. However, Burrowing Owl Surveys, are required within the project area. Therefore, in addition to the BRA survey, a BUOW habitat suitability assessment survey was conducted for the project area in accordance with the MSHCP requirements. As discussed under issue 4(a), the proposed project will be required to implement **Mitigation Measures MM-BIO-1** and **MM-BIO-2** to ensure that this species is protected prior to construction should the site become occupied with this species between the time of the survey and construction. These measures, as well as the BUOW habitat suitability assessment survey meet the MSHCP requirements, and no significant impacts are anticipated to occur to this species as a result of project implementation.

As stated above under Critical Habitat and MSHCP Consistency, the BRA concluded that the project is consistent with the MSHCP policies found in Section 6 of the MSHCP, which include Riparian/Riverine Areas/Vernal Pools, Narrow Endemic Plant Species, Criteria Area Species, Urban/Wildlands Interface, and Surveys for Special Status Species (BUOW). The project site is within the Western Riverside County MSHCP boundary but is not within or adjacent any MSHCP Criteria Cells or Cell Groups. Therefore, implementation of the MSHCP Section 6.1.4 Guidelines Pertaining to the Urban/Wildlands Interface is not required. The project proponent should be prepared to pay the MSHCP fees and restrict all project related impacts to existing right-of-way and/or other areas outside of Conserved Lands. No conservation or avoidance measures are expected, and the project as described, is consistent with the Reche Canyon/Badlands Area Plan conservation criteria and overall conservation goals and objectives set forth in the MSHCP. Therefore, with implementation of **Mitigation Measures MM-BIO-1** and **MM-BIO-2** to protect BUOW, the proposed project will Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan. No further mitigation is required.

Mitigation Measures

MM-BIO-1 Pre-construction surveys for BUOW should be conducted no more than 3 days prior to commencement of Project-related ground disturbance to verify that BUOW remain absent from the Project Area**.**

MM-BIO-2 If burrowing owl are discovered within the project footprint, a project specific BUOW protection and/or passive relocation plan shall be prepared to determine suitable buffers and/or artificial burrow construction locations to minimize impacts to this species. If a BUOW is found on-site at the time of construction, all activities likely to affect the animal(s) shall cease immediately and regulatory agencies shall be contacted to determine appropriate management actions.

MM-BIO-3 The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the State

identified nesting season (typically February 1 through September 1). Alternatively, nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code Section 9.17.030 G – Heritage Trees
4. Moreno Valley Municipal Code Chapter 8.60 – Threatened and Endangered Species
5. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/
6. Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), Governing Documents | RCHCA, CA
7. *Biological Resources Assessment, Jurisdictional Delineation Report & MSHCP Consistency Analysis*, prepared by Jacobs Engineering Group, Inc., 6-2021 (**Appendix B**)

5. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒

Response: *No Impact*

Local European History. In California, the historic period began in 1769 when the Spanish in Mexico founded Mission San Diego, the first European outpost in Alta California. Although the first explorers, including Pedro Fages and Juan Bautista de Anza, traveled through the Perris and San Jacinto Valleys as early as 1772-1774, no Europeans settled in the Moreno Valley area until the mid-1800's despite its location on a plain surrounded by several large Mexican land grants.

In 1870, a large tract of 13,471 acres was purchased from the U.S. government and the town of Alessandro, where the March Air Reserve Base lies today, were laid out and offered to settlers in 1887 during a land boom that swept through southern California in the 1880s. The area was initially developed in anticipation of water being delivered from the recently created Big Bear Valley Reservoir, but no large amounts of water were ever delivered.

Development of the area was severely hampered by the lack of reliable water supply until 1973, after the completion of the California Aqueduct and its southern terminus, Lake Perris. Since then, development of affordable housing brought an influx of commuters to the area, setting off a period of rapid growth and urbanization. By 1984, residents in the communities of Moreno, Sunnymead, and Edgemont voted to incorporate as the City of Moreno Valley.

Definition of Historic Resources. According to Public Resources Code (PRC) §5020.1(j), the term "historical resource" includes but is not limited to "any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

Project Impacts. A detailed cultural resources survey (*CRS*) was prepared for the Project site by CRM TECH in September 2021. The *CRS* determined the Project area had not been previously surveyed for cultural resources and no cultural resources were previously recorded within or adjacent to the Project boundaries. Records indicate the following three cultural sites have been recorded within a half-mile radius of the Project site:

- Site 33-007279 - D.C. Hield House (1896)
- Site 33-007280 - Rosa More House (circa 1880s)

- Site 33-028824 - Slab, utility pole, and glass bottle fragment

All of these sites are from the historic period and are not of pre-historic or archaeological origin (i.e., they are not related to Native American activities). Two of these sites were buildings, specifically single-family residences dating to the late 19th century, while the third represents structural remains. None of the sites were found in the immediate vicinity of the Project area and archival information indicates there were no structures on the Project site which was historically used for agriculture.

According to the *CRS*, the proposed Project site contains no artifacts or resources that satisfy any of the criteria for a historic resource defined in Section 15064.5 of the State CEQA Guidelines. Therefore, the Project area appears to have no sensitivity for cultural resources from the historic period. The Project site is also not listed with the State Office of Historic Preservation or the National Register of Historic Places.

Based on available evidence, the proposed Project will not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. No impacts will occur, and no mitigation is required.

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

Response: ***Less Than Significant with Mitigation Incorporated***

Local Native American History. The Moreno Valley area has long been a part of the traditional territory of the Luiseño, a Takic-speaking people whose territory extended from present-day Riverside to Escondido and Oceanside. The name Luiseño is derived from Mission San Luis Rey in Oceanside which "managed" most of the Luiseño territory during the Mission Period. Prior to European contact, the Luiseño may have been known as *Puyumkowitchum* or "western people."

Luiseño society was based on autonomous lineages or kin groups each of which possessed a permanent base camp or village on the valley floor and another in the mountain regions for acorn collection. Luiseño villages were made up of family members and relatives, usually located in sheltered canyons or near year-round sources of water and always close to mainly food resources.

At the time of the first European contact in 1769, the Luiseño had approximately 50 active villages with an average population of 200 persons in each village, although the total Luiseño population may have been as high as 4,000-5,000 persons. Some of the villages were forcefully moved to the Spanish mission while others were left intact. The Luiseño population declined rapidly after European contact because of harsh living conditions at the missions and later on the Mexican ranchos, as well as from European diseases such as smallpox. During the latter half of the 1800s, almost all of the remaining Luiseño villages were displaced and their occupants eventually removed to the various reservations including Soboba, Pechanga, and Pala.

Definition of Tribal Cultural Resources. The significance criteria outlined in Threshold 5.a above for historic resources also largely applies to archaeological resources which would be of Native American origin. On May 28, 2021, CRM TECH submitted a written request on behalf of the City of Moreno Valley to the State of California Native American Heritage Commission (NAHC) for a records search of their Sacred Lands File. The NAHC is the State of California's trustee agency for the protection of "tribal cultural resources" as defined by California Public Resources Code Section 21074 and is tasked with identifying and cataloging properties of Native American cultural value, including places of special religious, spiritual, or social significance and known graves and cemeteries throughout the state.

The NAHC recommended that local Native American groups be consulted for further information and provided a referral list of 22 individuals associated with 15 local Native American groups who may have knowledge of local tribal cultural resources. For more information on the tribal consultation process for the Project site, see the discussion under Threshold 18, *Tribal Cultural Resources*.

In addition, the Open Space and Resource Management Element of the City's General Plan 2040 has Policy OSRC.2-8 which requires "cultural resource assessments prior to the approval of development proposals on properties located in archaeologically sensitive areas."

Project Impacts. A detailed cultural resources survey (*CRS*) was prepared for the Project site by CRM TECH in September 2021. The purpose of the study was to determine whether the proposed Project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or near the Project area. For the purposes of this determination, the criteria for significant impacts to historical resources outlined in Threshold 5.a above also apply to archaeological or Native American resources.

In May 2021, CRM TECH notified the nearby Soboba Band of Luiseño Indians of the upcoming archaeological field survey and invited tribal participation. In August 2021, CRM TECH conducted a field survey of the Project site which was accompanied by a tribal monitor from the Soboba Band of Luiseño Indians. At that time, the Soboba Band expressed no specific concerns regarding the potential for cultural resources to be present within the Project area.

The *CRS* determined the Project area had not been previously surveyed for cultural resources and no resources were previously recorded within or adjacent to the Project boundaries. Records indicate three cultural sites have been recorded within a half-mile radius of the Project site, but all are from the historic period and are not of pre-historic or archaeological origin (i.e., they are not related to Native American activities).

The *CRS* recommended that if buried cultural materials are encountered during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The City has identified specific actions to protect cultural resources which have been incorporated into **Mitigation Measures MM-CUL-1** through **MM-CUL-8.**

With implementation of these measures, potential impacts related to archaeological resources pursuant to CEQA Guidelines Section 15064.5 that may be accidentally encountered during Project grading will be reduced to less than significant levels.

c)	Disturb any human remains, including those interred outside of formally dedicated cemeteries?	☐	☐	☐	☐

Response: ***Less Than Significant with Mitigation Incorporated***

If suspected human remains are found during grading, California Health and Safety Code Section 7050.5 requires the County Coroner to determine whether or not the remains are human. If the Coroner determines that the remains are or appear to be of Native American origin, the Native American Heritage Commission must be contacted.

Pursuant to Public Resource Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "most likely descendant" (MLD). The MLD shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. Human remains from other ethnic/cultural groups with recognized historical associations to the Project area shall also be subject to consultation between appropriate representatives from that group and the Community Development Director.

A detailed cultural resources survey (*CRS*) was prepared for the Project site by CRM TECH in September 2021. The CRS determined the site did not contain any identified or visible Native American resources, but local tribal representatives indicate it is always possible to encounter previously unknown buried NA remains during grading within their traditional tribal lands which includes the Project area.

It is possible that buried human remains may be encountered during construction given the proven prehistoric occupation of the region. As discussed in Threshold 5.b, **Mitigation Measures MM-CUL-7** and **MM-CUL-8** are recommended to reduce the potentially significant impact to previously unknown human remains that may be discovered during Project grading to a less than significant level.

Mitigation Measures

MM-CUL-1 Archaeological Monitoring. Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all ground disturbing 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) including

Consulting Tribe(s), the contractor, and the City, shall develop a CRMP as defined in **MM-CUL-3**. The Project archaeologist 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 to those in attendance. The archaeological monitor 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.

MM-CUL-2 Native American Monitoring. Prior to the issuance of a grading permit, the Developer shall secure agreements with the Consulting Tribe(s) for tribal monitoring. The City is also required to provide a minimum of 30 days' advance notice to the tribes of all ground disturbing 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. The Native American Monitor(s) shall attend the pre-grading meeting with the Project Archaeologist, City, the construction manager and any contractors and will conduct the Tribal Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance.

MM-CUL-3 Cultural Resource Monitoring Plan (CRMP). The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a CRMP in consultation pursuant to the definition in 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 AB52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a. Project description and location .
b. Project grading and development scheduling.
c. Roles and responsibilities of individuals on the Project.
d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details.
e. 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.
f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.
g. Contact information of relevant individuals for the Project.

MM-CUL-4 Cultural Resource Disposition. In the event that Native American cultural resources are discovered during the course of ground disturbing activities (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 **MM-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 **MM-CUL-3**. The location for the future reburial area shall be identified on a confidential exhibit on file with the City and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.

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."

MM-CUL-5 Inadvertent Finds. If potential historic or cultural resources are uncovered during excavation or construction activities at the project site that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, all ground disturbing activities in the affected area within 100 feet of the uncovered resource 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. Further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional archaeologist and Tribal Monitors, if needed. 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 **MM-CUL-2** before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Project Archaeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

MM-CUL-6 Human Remains. 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).

MM-CUL-7 Non-Disclosure of Reburial Locations. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

MM-CUL-8 Archaeology Report - Phase III and IV. Prior to final inspection, the developer/permit holder shall prompt the Project Archaeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Title 7 – Cultural Preservation
5. *Cultural Resources Survey Report,* prepared by CRM TECH, 9-23-2021 (**Appendix C**)

6. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

Construction-Related Energy Consumption

Estimated Energy Consumption

Heavy-duty construction equipment associated with grading, installation of utilities, paving, and building construction would include Graders, Excavator, Rubber Tired Dozers, Tractors/ Loaders/ Backhoes, Cranes, Forklifts, Generator Sets, Tractors/ Loaders/ Backhoes, Welders, Pavers, Paving Equipment, Rollers, and Air Compressors. The majority of the equipment would likely be diesel-fueled; however, smaller equipment, such as air compressors and forklifts may be electric, gas, or natural gas-fueled. For the purposes of this assessment, it is assumed that the construction equipment would be diesel-fueled, due to the speculative nature of specifying the amounts and types of non-diesel equipment that might be used, and the difficulties in calculating the energy, which would be consumed by this non-diesel equipment.

Fuel consumed by construction equipment would be the primary energy resource expended over the course of project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in **Table 6-1, *Construction Equipment Fuel Consumption Estimates***. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines.

For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the City and region. As presented in **Table 6-1**, project construction activities would consume an estimated 27,762 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose.

Table 6-1
Construction Equipment Fuel Consumption Estimates[1]

Activity/ Duration	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Grading	10	Graders	187	1	8	0.41	613	332
		Excavator	158	1	8	0.38	480	300
		Rubber Tired Dozers	247	1	8	0.40	790	427
		Tractors/ Loaders/ Backhoes	97	2	7	0.37	502	272
Building Construction	230	Cranes	231	1	8	0.29	536	6,661
		Forklifts	89	2	7	0.20	249	3,069
		Generator Sets	84	1	8	0.74	497	6,187
		Tractors/ Loaders/ Backhoes	97	1	6	0.37	215	2,677
		Welders	46	3	8	0.45	497	6,187
Paving	20	Pavers	130	1	8	0.42	437	472
		Paving Equipment	132	1	8	0.36	380	410
		Rollers	80	2	8	0.38	486	526
Architectural Coatings	20	Air Compressors	78	1	6	0.48	225	242
CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)								**27,762**

[1]Based on Appendix A of the CalEEMod User's Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel. (refer to **Appendix A** of IS Appendices)

Based on the CalEEMod, the trip and vehicle miles travelled (VMT) are the number and length of on-road vehicle trips for workers, vendors, and hauling for each construction phase. The trips identified in **Table 6-2, *Construction Trips and VMT*** are based on the CalEEMod default parameters, with the exception of trips during demolition which have been adjusted based on information provided by the project Applicant.

With respect to estimated VMT for the project, the construction worker trips would generate an estimated 349,228 VMT for the entirety of the duration of construction. A 2007 study by the California Department of Transportation (Caltrans) estimates the statewide average fuel economy for all vehicle types (automobiles, trucks, and motorcycles) in the year 2020 is 18.78 miles per gallon.[2] In March 2019, the Department of Motor Vehicles (DMV) identified 36.4 million registered vehicles in California, and those vehicles consume an estimated 17.8 billion gallons of fuel each year (including 14.6 billion gallons of gasoline (including ethanol) and 3.2 billion gallons of diesel fuel (including biodiesel and renewable diesel).[3] Assuming construction worker vehicles have an average fuel economy consistent with the Caltrans study, the proposed project would result in consumption of approximately 18,595.7 gallons

[2] 2007 California Motor Vehicle Stock, Travel and Fuel Forecast, California Department of Transportation, Table 1, (2008).

[3] Fuel consumptions estimated utilizing information from EMFAC2017.

of fuel during the life of the project, which constitutes 0.001% of the statewide transportation gasoline consumption in 2019, which is the latest year that data is available. This amount of consumption is considered minimal in the cumulative context of overall state fuel usage.

Table 6-2
Construction Trips and VMT

Phase Name	Worker Trips / Day	Vendor Trips / Day	Hauling Trips / Day	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Grading	15	0	158	14.7	6.9	20
Building Construction	83	16	0	14.7	6.9	20
Paving	15	0	0	14.7	6.9	20
Architectural Coatings	17	0	0	14.7	6.9	20

Source: CalEEMod 2016.3.2

Electricity used during construction to provide temporary power for lighting and electronic equipment (e.g., computers, etc.) inside temporary construction trailers and for outdoor lighting when necessary for general construction activity would generally not result in a substantial increase in on-site electricity use. Electricity use during construction would be variable depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. Thus, electricity use during construction would generally be considered negligible, and as such, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption that could result in a significant adverse impact to energy issues based on compliance with the referenced laws, regulations and guidelines.

Energy Conservation: Regulatory Compliance

The City of Moreno Valley has adopted a Source Reduction and Recycling Element (SRRE) that requires the solid waste that will be generated by the project to be recycled and the materials that cannot be recycled would be hauled to a County landfill. The City's waste hauler would actively recycle the solid waste generated by the project to reduce the amount of material that is hauled to a landfill. As required by Assembly Bill 939 (AB 939) and the City's SRRE, the solid waste generated by the project will be recycled and the materials that cannot be recycled hauled to a landfill operated by the County of Riverside. Project compliance with CALGreen and the City's SRRE will reduce and conserve energy.

During construction, the proposed project will utilize construction equipment that is CARB approved, minimizing emissions generated and electricity required to the extent feasible (through implementation of **Mitigation Measure MM-AQ-2**, provided under Section 3, Air Quality). As stated in Section 3, Air Quality, the construction of the proposed Cottonwood Village Development would require mitigation to minimize emissions impacts from construction equipment use. This mitigation measure also applies to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. This measure would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency.

Furthermore, **Mitigation Measures MM-AQ-4** and **MM-AQ-5**, identified under Section 3, Air Quality would ensure that light colored paving and roofing materials and utilization of energy star appliances, etc. would be required to further encourage energy efficiency, which will minimize operational energy use even further than through the mandatory energy efficiency requirements discussed below. Additionally, the project structures must be constructed in conformance with a variety of existing energy efficiency regulatory requirements or guidelines including:

- Compliance California Green Building Standards Code, AKA the CAlGreen Code (Title 24, Part 11), which became effective on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of building through the use of building concepts encouraging sustainable construction practices.
- The provisions of the CALGreen code apply to the planning, design, operation, construction, use, and occupancy of every newly construction building.
- Compliance The Building Energy Efficiency Standards (CBSC) would ensure that the building energy use associated with the proposed project would not be wasteful or unnecessary.
- Compliance with Indoor Water use consumption reduced through the maximum fixture water use rates.
- Compliance with diversion of construction and demolition materials from landfills.
- Compliance with AQMD Mandatory use of low-pollutant emitting finish materials.
- Compliance with AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.
- Compliance with diesel exhaust emissions from diesel vehicles and off-road diesel vehicle/equipment operations.
- Compliance with these regulatory requirements for operational energy use and construction energy use would not be wasteful or unnecessary use of energy.

Further, SCE is presently in compliance with State renewable energy supply requirements and SCE will supply electricity to the project.

Operational Energy Consumption

The daily operation of the project would generate a demand for electricity, natural gas, and water supply, as well as generating wastewater requiring conveyance, treatment and disposal off-site, and solid waste requiring off-site disposal. Southern California Edison is the electrical purveyor in the City of Moreno Valley and would provide electricity to the project. The Southern California Gas Company is the natural gas purveyor in the City of Moreno Valley would provide natural gas to the project.

Based on a review of the Moreno Valley General Plan EIR, the proposed project, which has been deemed in compliance with the City's General Plan Land Use Designation for the site, would fit within the context of the analysis of the electricity, natural gas, and other energy facility demands that were projected to occur at build-out of the City. As build-out of the City has not yet occurred, and the project fits within the context of the City's planned development, the energy demanded by the proposed project would not be inefficient, wasteful, or unnecessary as the City's General Plan EIR determined that development associated with build-out of the City would have a less than significant impact on energy resources. No mitigation beyond those identified above are required.

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Based on the analysis in the preceding discussion, the project is subject to California Building Code requirements. New buildings must achieve compliance with 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standards requirements.

The project would provide for, and promote, energy efficiencies equal to or beyond those required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the project's operation is anticipated to be comparable to, or less than, energy consumed by other residential uses of similar scale and intensity that are constructed and operating in California, and more specifically, the proposed project would demand energy within the context of the City's planned development as demonstrated in the General Plan EIR, and perhaps would generate less energy than anticipated when the General Plan was adopted as energy efficiency standards have become more stringent in the 15 years since that document was developed. On this basis, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the project would not cause or result in the need for additional energy producing facilities or energy delivery systems.

Mitigation Measures

MM-AQ-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.
- Contactors shall utilize Tier 4 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

MM-AQ-4 Use light colored paving and roofing materials.

MM-AQ-5 Utilize only Energy Star heating, cooling, lighting devices, and appliances, where applicable.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Southern California Edison. Schedule D Domestic Service. *Regulatory Information - Rates Pricing.* [Online] https://library.sce.com/content/dam/sce-doclib/public/regulatory/tariff/electric/schedules/residential-rates/ELECTRIC_SCHEDULES_D.pdf
5. California Department of Transportation. EMFAC Software. http://www.dot.ca.gov/hq/env/air/pages/emfac.htm

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

6. State of California. Title 24, Part 6, of the California Code of Regulations. *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*. http://www.energy.ca.gov/title24/
7. *Air Quality and GHG Impact Analysis*, prepared by Giroux & Associates, 6-10-2021 (**Appendix A**)

7. GEOLOGY AND SOILS – Would the project:

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 https://www.conservation.ca.gov/cgs/Documents/SP_042.pdf	☐	☐	☒	☐

Response: *Less Than Significant Impact*

The project site is located in the City of Moreno Valley, which is a seismically active area. The San Jacinto Alquist-Priolo Special Study Zones classified as such under the Alquist-Priolo Earthquake Fault Zoning Act runs through the northern part of the City along the Box Springs Mountains, which separate Moreno Valley from the San Bernardino Valley to the north. **Figure 7-1, *Fault Zones*** shows where this fault is located as indicated by the Moreno Valley City General Plan. According to **Figure 7-1**, the site is not located within an Alquist-Priolo Special Study Zone. Based on this information, the risk for ground rupture at the site location is low; therefore, it is not likely that future residents and visitors of the project will be subject to rupture from a known earthquake fault. Therefore, any impacts under this issue are considered less than significant; no mitigation is required.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

Response: *Less Than Significant Impact*

As stated in the discussion above, the San Jacinto Fault runs through the Box Springs Mountains to the north of the City, and as with much of southern California, the proposed structures will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future, as shown on **Figure 7-1**. As a result, while the proposed project is located about two miles from the nearest fault, like all other development projects in the City and throughout the Southern California region, the proposed project will be subject to seismic ground shaking and will required to comply with all applicable seismic design standards contained in the 2019 California Building Code (CBC), including Section 1613 Earthquake Loads. Compliance with the CBC will ensure that structural integrity of the occupied buildings will be maintained in the event of an earthquake. Therefore, impacts associated with strong ground shaking will be less than significant without mitigation.

iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

Response: *Less Than Significant Impact*

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

According to the City of Moreno Valley General Plan Liquefaction Map, provided here as **Figure 7-2, *Liquefaction Map***, the proposed project is not located within an area that is considered susceptible to seismic-related ground failure, including liquefaction. The factors known to influence liquefaction potential include soil type and grain size, relative density, confining pressures, and both intensity and duration of ground shaking. In general, materials that are susceptible to liquefaction are loose, saturated granular soils having low fines content under low confining pressures. Groundwater was encountered at a depth of 31 feet below ground surface (BGS), and no seepage was encountered. The City's General Plan EIR indicates the City has not discovered evidence of liquefaction events occurring in the community as projects have been brought forth for City consideration, though there are several areas identified in the southwest portions of the City that may be susceptible to liquefaction. Furthermore, the Geotechnical Evaluation prepared for the project site, prepared by GeoTek, Inc., dated April 10, 2014 (**Appendix D1**), update dated June 24, 2021 (**Appendix D2**), indicates that the liquefaction potential at the site is considered to be low due to the dense nature of the underlying materials and overall material types. As the proposed project is not located within an area that has been delineated as being susceptible to liquefaction, it is anticipated that the project will have a less than significant potential to expose people or structures to substantial adverse liquefaction hazards, including the risk of loss, injury, or death involving liquefaction. No mitigation is required to minimize impacts under this issue.

iv)	Landslides?	☐	☐	☐	☒

Response: *No Impact*

According to the City of Moreno Valley General Plan Landslide Map, provided here as **Figure 7-3, *Landslide Map***, the proposed project is not located within an area that is considered susceptible to landslide. Furthermore, typically landslide would occur in areas on or adjacent to a hillside, while the proposed project is located on a relatively flat site. As such, given that the project site is essentially flat, and it is not located in an area in which landslides are anticipated to occur, the project will not expose people or structures to potential substantial adverse landslide effects, including the risk of loss, injury, or death involving landslides. There will be no impacts under this issue and no mitigation is required.

b)	Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐

Response: *Less Than Significant With Mitigation Incorporated*

The potential for soil erosion, loss of topsoil, and/or developing the site on unstable soils is anticipated to be marginally possible at the site during ground disturbance associated with construction. The project site is vacant with minimal vegetation coverage. Wind erosion can be minimized through implementing mandated soil stabilization measures by South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust), such as daily watering. Water erosion will be prevented through the City's standard, mandated, erosion control practices required pursuant to the CBC and the National Pollution Discharge Elimination System (NPDES), such as silt fencing, fiber rolls, or sandbags. Additionally, best management practices, Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP) are required to control the potential significant erosion hazards. During

project construction when soils are exposed, temporary soil erosion could occur, which could be exacerbated by rainfall. Project grading would be managed through the preparation and implementation of a SWPPP and will be required to implement best management practices to achieve concurrent water quality controls after construction is completed and the Cottonwood Village Project is occupied. **Mitigation Measures MM-GEO-1** and **MM-GEO-2** shall be implemented: or equivalent best management practices (BMPs) shall be implemented to address these issues.

After the project is constructed, the site will be covered completely by paving, structures, and landscaping.

The City has standard conditions of approval (COAs) that require a project to comply with erosion control and dust suppression regulations of the South Coast Air Quality Management District (SCAQMD) as well as erosion control and water quality requirements of the City's MS4 permit. Compliance with the City's standard COAs related to dust and erosion control is considered regulatory compliance and are not unique mitigation under CEQA. Therefore, with implementation of the above mitigation measures, and compliance with the applicable regulations, any impacts under this issue are considered less than significant.

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?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

Refer to the prior discussion under 7(a). Potential instability associated with slope stability related to the project was determined to be less than significant, as was the potential for liquefaction hazards at the site, as the site itself is not mapped as being located within a liquefaction or landslide zone. According to the United States Department of Agriculture Web Soil Survey, the project Area of Potential Effect (APE) is underlain by various types of sandy loam (Pachappa fine sandy loam and Romona sandy loam). These soils are typically well drained and are therefore considered stable with a low potential for lateral spreading or subsidence. Furthermore, the City of Moreno Valley General Plan EIR indicates that an area in the southeastern portion of the planning area has experienced subsidence in the past, thus given that the proposed project is not located within this area, the risk for injury or loss of life due to subsidence is considered low. The proposed project is unlikely to be susceptible to collapse, and compliance with the 2019 CBC would, as stated in the City's General Plan EIR, minimize any impacts thereof. The *Geotechnical Evaluation* prepared for the project site indicates that subsidence may occur on the order of about 0.1 foot, and site balance areas should be available to properly adjust the grade. As such, **Mitigation Measure MM-GEO-3** shall be implemented that will enforce the overall geotechnical design parameters introduced in the Geotechnical Evaluation.

Furthermore, the proposed project would be required to comply with the City's standard COAs as they apply to soil instability; compliance thereof would minimize impacts related to soil instability. Therefore, with the implementation of **Mitigation Measure MM-GEO-3**, the project will not have a significant potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse. Any impacts are considered less than significant with incorporation of mitigation.				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

According to the United States Department of Agriculture Web Soil Survey, the project's Area of Potential Effect (APE) is underlain by Pachappa fine sandy loam and Romona sandy loam. This soil class is, according to the USDA Soil Series website, Pachappa series soils series consists of well drained (minimal) Noncalcic Brown soils developed from moderately coarse textured alluvium. Romona series soils are well-drained; slow to rapid runoff; moderately slow permeability. These soils are typically well drained and are therefore considered stable with a low potential to encounter expansive soils at the site. The proposed project would also be required to comply with **Mitigation Measure MM-GEO-3**, which would ensure that design recommendations outlined in the *Geotechnical Evaluation* are implemented to ensure soil stability upon development of the project. Additionally, the proposed project would be required to comply with the City's standard COAs as they apply to soil instability; compliance thereof would minimize impacts related to soil instability. Furthermore, expansive soils are typically clay type soils, and given that no clay type soils exist at the project site, with implementation of **MM-GEO-3**, the development of the project would have a less than significant potential to create a substantial risk to life or property by being placed on expansive soils because none exist on the site.

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?	☐	☐	☐	☒

Response: ***No Impact***

The project does not propose any septic tanks or alternative wastewater disposal systems as it will connect to the existing Eastern Municipal Water District (EMWD) sewer system. Therefore, determining if the project site soils are capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater does not apply. There will be no impacts and no mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

The potential for discovering paleontological resources during development of the project is considered not likely based on the data gathered within the *Cultural Resources Survey*. Furthermore, the Moreno Valley General Plan EIR indicates that the proposed project is located in an area with low potential for discovery of paleontological resources (refer to **Figure 7-4, *Paleontological Sensitivity Map***). No unique geologic features are known or suspected to occur on or beneath the site. According to the County's General Plan EIR, Paleontological Sensitivity Map (**Figure 7-4**), the project site and surrounding area have Low to High sensitivity

for paleontological resources. The "High" classification indicates fossiliferous materials may be found at depths greater than 10 feet even in what may be classified as younger alluvium due to intrusions of older materials that may not be accurately mapped below the surface. While the overall potential for paleontological or unique geological resources is considered low, ground-disturbing activities still have the potential to disturb previously unknown resources, therefore, **Mitigation Measure MM-GEO-4** shall be implemented.

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduces to a less than significant level. No additional mitigation is required.

Mitigation Measures

MM-GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup such that erosion does not occur.

MM-GEO-2 All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the Cottonwood Village Project is being constructed.

MM-GEO-3 Based upon the *Geotechnical Evaluation* (**Appendix D1** of this document), all of the recommended design parameters identified in **Appendix D1** (beginning on Page 5 at "Conclusions and Recommendations") and the seismic parameters identified in the *Geotechnical Evaluation Update* (**Appendix D2** of this document), (beginning on page 3 and concluding on page 3) shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including remediation to address subsidence.

MM-GEO-4 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with City's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate preservation and protection actions within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.

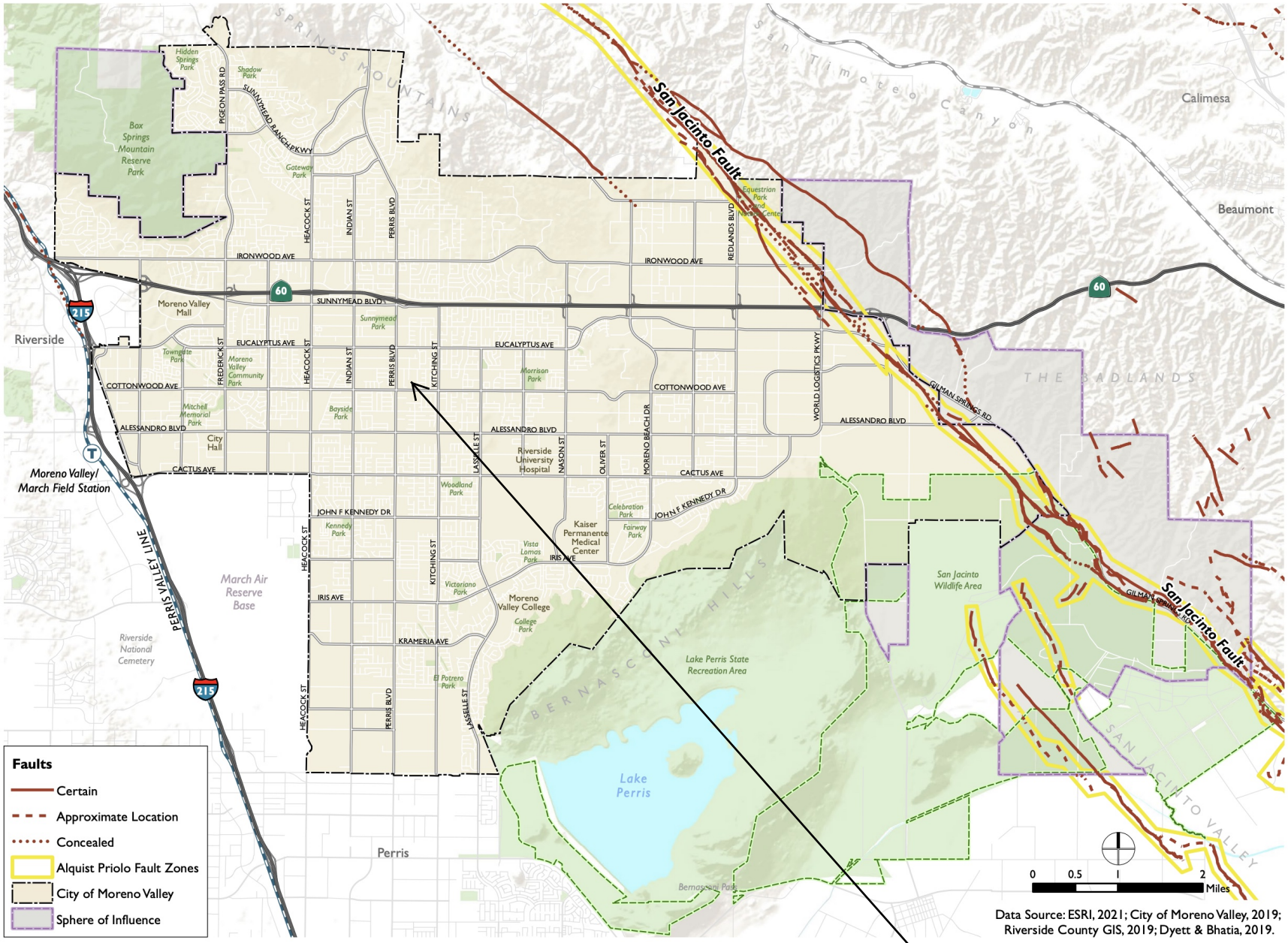
Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Chapter 8.21 – Grading Regulations

V. ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

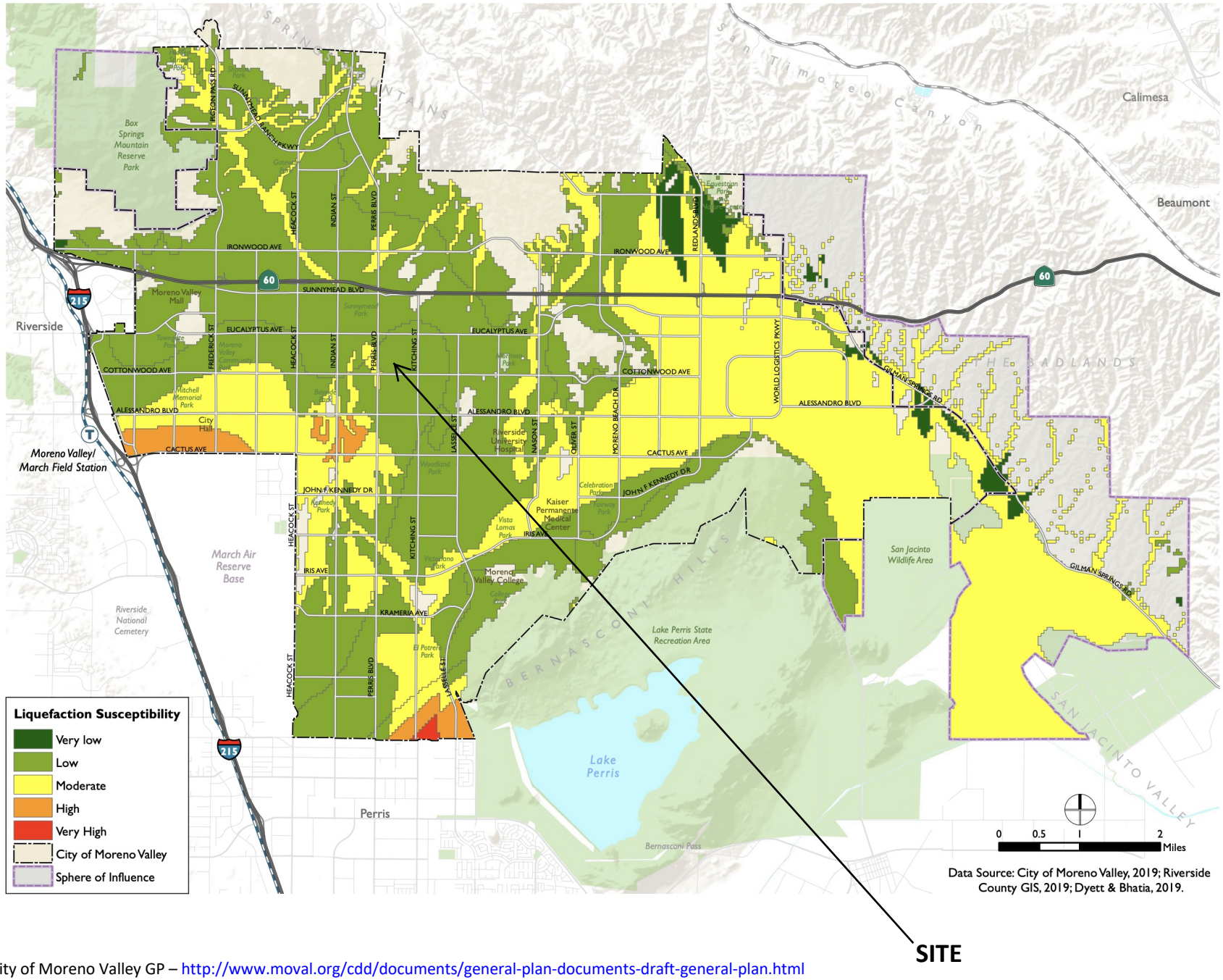
5. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017, http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   Chapter 4 – Earthquake
   Figure 4-1 – Right-Lateral Strike -Slip Fault
   Figure 4-1.1 – Moreno Valley Geologic Faults and Liquefaction 2016
   Figure 4-1.2 – Moreno Valley Area Ground Shaking Map
   Chapter 8 – Landslide
   Figure 8-1 – Moreno Valley Slope Analysis 2016
6. Emergency Operations Plan, City of Moreno Valley, March 2009, http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   Threat Assessment 1 – Major Earthquakes
   Figure 9 – Types of Faults
   Figure 10 – Earthquake Faults
   Figure 11 – Comparison of Richter Magnitude and Modified Mercalli Intensity
   Figure 12 – Magnitude 4.5 or Greater Earthquake Map
   Figure 13 – Geologic Faults and Liquefaction
7. California Department of Conservation Geologic Survey Data Viewer https://maps.conservation.ca.gov/cgs/DataViewer/
8. United States Department of Agriculture (USDA) Natural Resources Conservation Survey Web Soil Survey https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
9. USDA, Pachappa Series: https://soilseries.sc.egov.usda.gov/OSD_Docs/P/PACHAPPA.html
10. USDA, Ramona Series: https://soilseries.sc.egov.usda.gov/OSD_Docs/R/RAMONA.html
11. *Geotechnical Evaluation Update,* prepared by GeoTek, Inc., 6-24-2021 (**Appendix D2**)
12. *Geotechnical Evaluation,* prepared by GeoTek, Inc., 4-10-2014 (**Appendix D1**)
13. *Cultural Resources Survey Report,* prepared by CRM TECH, 9-23-2021 (**Appendix C**)

FIGURE 7-1
FAULT ZONES



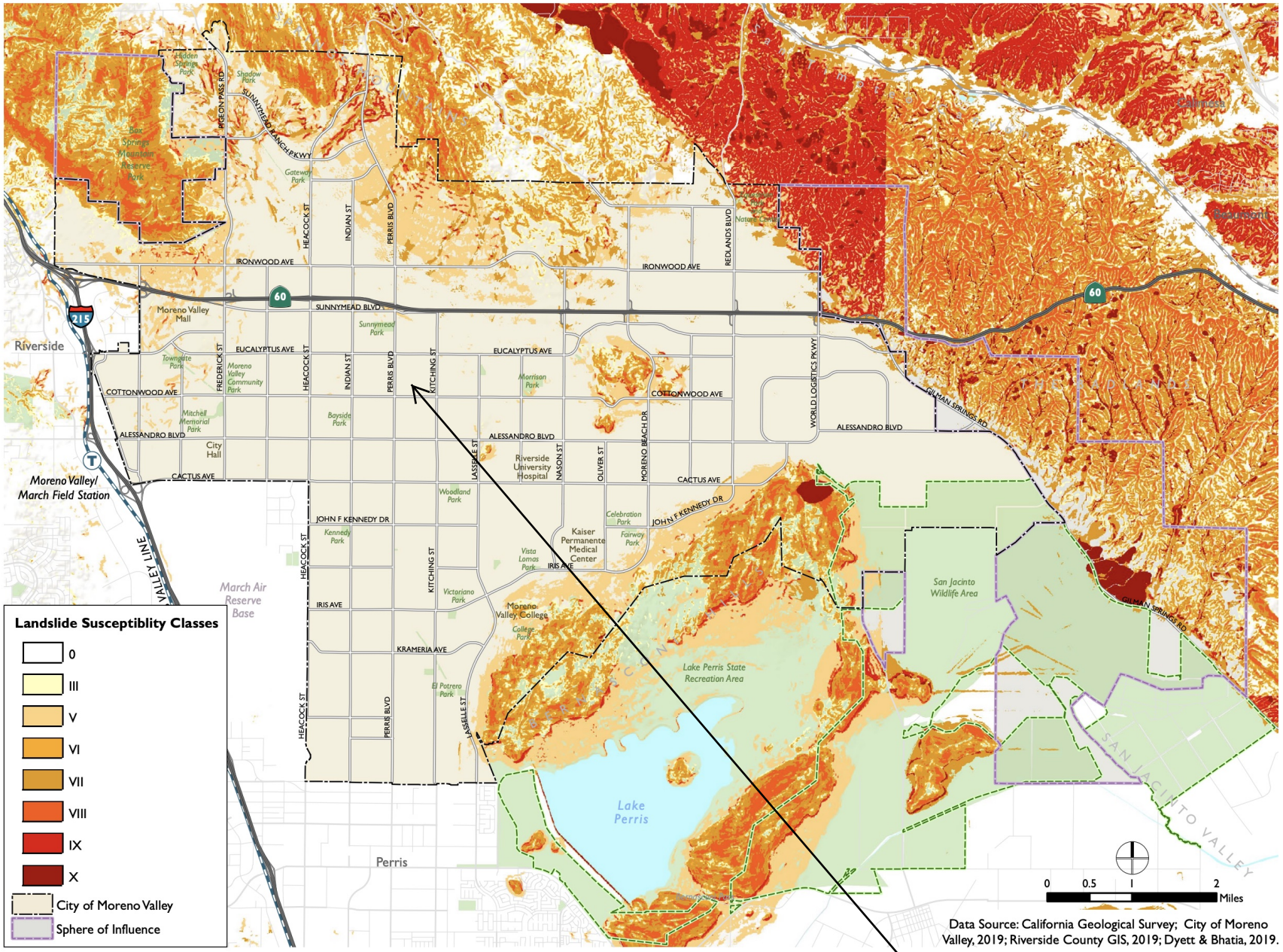
Source: City of Moreno Valley GP – http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html

FIGURE 7-2
LIQUEFACTION MAP



Source: City of Moreno Valley GP – http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html

FIGURE 7-3
LANDSLIDE MAP



Source: City of Moreno Valley GP – http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html

FIGURE 7-4
PALEONTOLOGICAL SENSITIVITY MAP

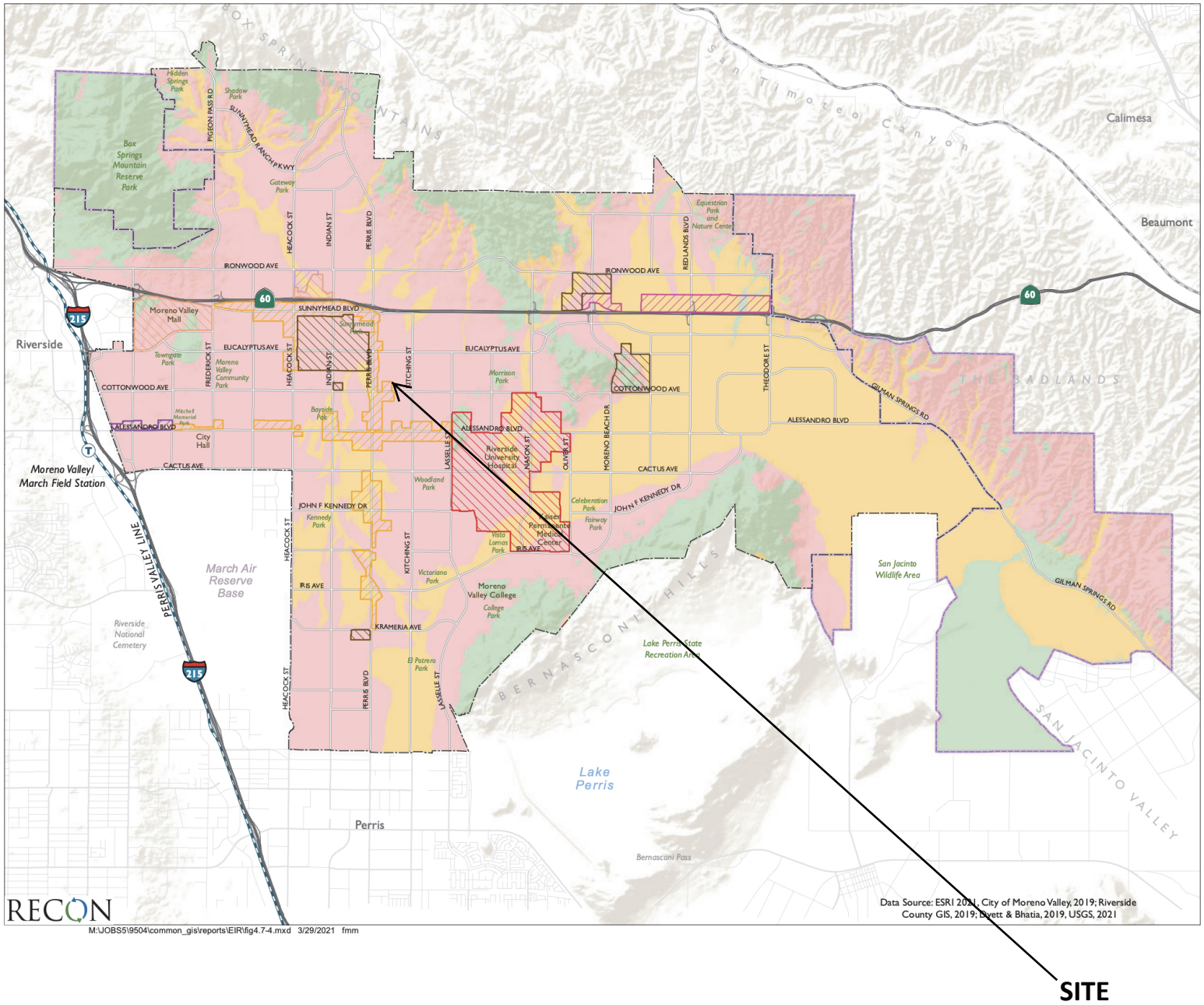


FIGURE 4-7.4
Paleontological Sensitivity

Source: City of Moreno Valley GP – http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html

8. GREENHOUSE GAS EMISSIONS – Would the project:				
SUBSTANTIATION: An Air Quality and GHG Impact Analysis was prepared for the proposed project, it is provided as **Appendix A** to this Initial Study, is titled "Air Quality and GHG Impact Analysis, Cottonwood Village Residential Project, Moreno Valley, California" prepared by Giroux & Associates dated June 10, 2021.				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07. AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions, are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e., company owned) and indirect sources (i.e., not company owned).

Thresholds of Significance

In response to the requirements of SB 97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of Project-related GHG emissions, making a determination of significance, and specification of any appropriate

mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008, the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO_2 equivalent/year. In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions which recommended a threshold of 3,000 MT CO_2e for all land use projects. This 3,000 MT/year recommendation has been used as a guideline for this analysis. In the absence of an adopted numerical threshold of significance, Project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

Construction Activity GHG Emissions

The project is assumed to require less than one year for construction but will overlap two calendar years with construction commencing in the summer of 2021. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO_2 emissions identified in **Table 8-1, *Construction Emissions (Metric Tons CO_2e)***.

Table 8-1
Construction Emissions (Metric Tons CO_2e)

	CO_2e
Year 2022	396.8
Year 2023	60.0
Total	456.8
Amortized	**15.2**

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less than significant. No mitigation is required.

Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod2016.3.2 output files found in the appendix of the GHG report.

The total operational and annualized construction emissions for the proposed project are identified in **Table 8-2, *Operational Emissions (Metric Tons CO_2e)***. The project GHG emissions are considered less than significant. No mitigation is required.

Table 8-2
Operational Emissions (Metric Tons CO_2e)

Consumption Source	
Area Sources	21.6
Energy Utilization	282.4
Mobile Source	886.1
Solid Waste Generation	21.3
Water Consumption	46.5
Construction	15.2
Total	**1,273.1**
Guideline Threshold	3,000

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☐

Response: *Less Than Significant Impact*

Consistency with GHG Plans, Programs, and Policies

The City of Moreno Valley published a Climate Action Plan (CAP) Draft on March 30, 2021[4]. The Moreno Valley CAP is designed to reinforce the City's commitment to reducing greenhouse gas (GHG) emissions and demonstrate how the City will comply with California's GHG emission reduction standards. As a qualified GHG Reduction Strategy, the CAP plans to enable streamlined environmental review of future development projects in accordance with CEQA. The CAP includes:

- An inventory of the city's GHG emissions; and
- Forecasts of future GHG emissions; and
- Actions that demonstrate the City of Moreno Valley's commitment to achieve State GHG reduction targets by monitoring and reporting processes ensuring targets are met.

Transportation was found to be the largest contributor to GHG emissions. The following transportation measures could be applicable to residential projects:

ID	Transportation Measures	Assumed Effectiveness
TR-5	Implement trip reduction programs in new residential, commercial, and mixed-use development	5.0%
TR-9	Consider requiring new multi-family residential and mixed use development to reduce the need for external trips by providing useful services/facilities on-site such as an ATM, vehicle refueling, electric vehicle infrastructure, and shopping.	0.0%

[4] http://www.moval.org/cdd/documents/general-plan-update/draft-docs/ClimateActionPlan/Draft-MV-CAP.pdf

Moreno Valley seeks to provide a range of new housing suited to people of all ages and income levels with an emphasis on increasing the diversity of housing types in the community and promoting construction of multi-family and mixed-use residential development in infill areas near employment and shopping and well-served by transit and public facilities. Under existing conditions, residential uses in the city are predominantly single-family homes and housing in total accounts for nearly 32 percent of land within the city limit.

The following strategies identified in the CAP represent opportunities to reduce residential emissions through energy-efficient improvements, energy audits, and citywide programs:

ID	Residential Measures	Assumed Effectiveness
R-1	Provide incentives such as streamlined permitting or bonus density for new multi-family buildings and re-roofing projects to install "cool" roofs consistent with the current California Green Building Code (CALGreen) standards for commercial and industrial buildings.	25.0%
R-2	Require new construction and major remodels to install interior real-time energy smart meters in line with current utility provider (e.g. MVU, SCE) efforts.	7.0%
R-3	Develop and implement program to incentivize single-family residential efficiency retrofits and participation in Moreno Valley Utility direct install program with the goal of a 50 percent energy reduction compared to baseline in 30 percent of the total single-family homes citywide by 2040.	15.0%
R-4	Prioritize cap and trade funds to assist low-income homeowners achieve energy-efficient improvements and fund weatherization programs.	3.7%
R-5	Apply for and prioritize Community Block Development Grant funds to assist low-income homeowners achieve energy-efficient improvements.	3.7%
R-6	Develop program and funding strategy to incentivize conversion of natural gas heated homes and nonresidential buildings to electricity	2.0%
R-7	Develop and implement program to incentivize multi-family residential efficiency audits and participation in Moreno Valley Utility direct install program with the goal of a 50 percent energy reduction in 30 percent of the projected amount of multi-family homes citywide by 2035	15.0%
R-8	Provide a toolkit of resources, including web-based efficiency calculators, for residents and businesses to analyze their greenhouse gas emissions in comparison to their neighborhood, the city, and the region.	0%
R-9	Develop and implement a competitive greenhouse gas reduction program with an award component between groups of citizens in the city.	0%

The City of Moreno Valley has already demonstrated its commitment to sustainability through a variety of programs and policies. These programs include Energy Efficiency and Conservation Block Grant (EECBG) funded energy upgrade projects, participation in the Community Energy Partnership, tracking of building energy use through the Energy Star Portfolio Manager, and the Solar Incentive Program for Moreno Valley Utility customers.

The proposed CAP has not yet been adopted [partially due to Coronavirus Disease 2019 (COVID-19) related issues] and administration of the plan is still under discussion. Nevertheless, the project would be required to comply with as many of these measures as possible, which will ensure a best faith effort to ensure the goals of the CAP will be met. Ultimately, since the project results in GHG emissions below the recommended SCAQMD 3,000 metric ton threshold for any land use project, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
2. California's 2017 Climate Change Scoping Plan, prepared by the California Air Resources Board, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf
3. *Air Quality and GHG Impact Analysis*, prepared by Giroux & Associates, 6-10-2021 (**Appendix A**)

9. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The Project may create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The Project consists of the development of 23 residential buildings (4-plex) on the site, with a total of 92, 3-bedroom town home units; operation of such uses would not involve the use of substantial amounts of hazardous materials. Household cleaning supplies would be used in small quantities to support the townhouses. Compliance with all Federal, State, and local regulations governing the storage and use of hazardous materials is required and will ensure that the Project operates in a manner that poses no substantial hazards to the public or the environment.

During construction, there would be the transport, use, and disposal of hazardous materials and wastes that are typical of construction projects. This would include fuels and lubricants for construction machinery, paint and other coating materials, etc. Routine construction control measures and best management practices for hazardous materials storage, application, waste disposal, accident prevention and clean-up, etc. would be sufficient to reduce potential impacts to a less than significant level.

Therefore, because the transport, use, storage, and disposal of hazardous materials pertaining to the proposed Project would be relatively minor and subject to existing regulations, the impact is considered less than significant. Use of common household hazardous materials and their disposal does not present a substantial health risk to the community. Impacts associated with the routine transport and use of hazardous materials or wastes will be less than significant.

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?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

The Project may 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. A *Phase I Environmental Site Assessment* (*Phase I ESA*) has been prepared for the Project. According to the *Phase I ESA*, based on readily available historic information, the Site has been vacant and undeveloped land since at least 1938. The surrounding properties appear to historically have been vacant land or utilized for residential development since at least 1938. The residential

development to the west and north of the site can be observed in an aerial photograph dated 1959. The *Phase I ESA* has not revealed evidence of an environmental condition or concern in connection with the project site, therefore existing circumstances at the project site are not anticipated to exacerbate the potential for accidental exposure to hazardous materials.

During construction there is a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people and the environment. The following mitigation measure will be incorporated into the Storm Water Pollution Prevention Plan (SWPPP) prepared for the Project and implementation of **Mitigation Measure MM-HAZ-1** can reduce this potential hazard to a less than significant level.

With implementation of the above mitigation measure, as well as adherence to existing local, state and federal regulations as they pertain to the treatment of hazardous materials, the proposed Project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The Project site is located within the boundaries of the Moreno Valley Unified School District (MVUSD) which provides comprehensive educational services and facilities for students in Kindergarten through 12th grade. Additionally, the City is home to several private schools. The proposed Project is located within one quarter mile of a private school, Saint Christopher's School, is located just across the street from the project site along Cottonwood Avenue. Additionally, the Butterfield Elementary School is located one block east of the project site at the northeastern corner of Cottonwood Avenue and Kitching Street. As stated above, operation of the townhouses would not involve the use of a substantial amount of hazardous materials. Furthermore, as stated above compliance with all Federal, State, and local regulations governing the storage and use of hazardous materials is required and will ensure that the Project operates in a manner that poses no substantial hazards to the public or the environment. Thus, while the proposed Project is located adjacent to a school, the proposed use would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No adverse impacts are anticipated and therefore impacts under this issue are considered less than significant.

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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The proposed Project consists of an approximately 9-acre parcel that is currently vacant with minimal vegetation cover—though some vegetation grows as a result of uncontrolled runoff from nearby roadways to the north—that is in an area containing existing residential and commercial development. The Project will not be located on a site that is included on a list of hazardous materials sites that are currently under remediation. According to the California State Water Board's GeoTracker website (consistent with Government Code Section 65962.5),

which provides information regarding Leaking Underground Storage Tanks (LUST), there are no open LUST clean-up sites within 5,280 feet of the project site (**Figure 9-1, *GEOTRACKER***), though there are several LUST clean-up sites that have been remediated located within the same radius of the project site (refer to **Figure 9-1**). These LUST clean-up sites are no longer considered hazardous to the environment and as such would not impact development at this site and there are no clean-up sites that have been closed and remediated.

The proposed Project is also 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. *The Phase I ESA* concluded none of these sites represents a and environmental concern to the project site in terms of hazardous materials. Finally, the project site is not:

- Listed as a hazardous waste and substance site by the Department of Toxic Substances Control (DTSC);
- Listed as a leaking underground storage tank (LUST) site by the State Water Resources Control Board (SWRCB);
- Listed as a hazardous solid waste disposal site by the SWRCB;
- Currently subject to a Cease and Desist Order (CDO) or a Cleanup and Abatement Order (CAO) as issued by the SWRCB; or
- Developed with a hazardous waste facility subject to corrective action by the DTSC.

Therefore, the proposed construction and operation of the site as the Cottonwood Village Project will have a less than significant potential to create a significant hazard to the population or to the environment from their implementation.

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?	☐	☐	☐	☒

Response: *No Impact*

The proposed project site is not located within two miles of an airport or private airstrip. The closest airport to the project site is the March Air Reserve Base/Inland Port Airport, which is located approximately 2.75 miles to the southwest of the project site as shown on the Moreno Valley General Plan Airport Land Use Compatibility Zone (**Figure 9-2, *Airport Land Use Compatibility Zone***). The proposed Project is located outside of the airport crash hazard zone. While the proposed Project is located within the Federal Aviation Regulation (FAR) Part 77 Military Outer Horizontal Surface Limits, the proposed Project will comply with the regulations thereof, which would minimize any potential for a safety hazard or excessive noise for people residing within, working at, or visiting the project site. Therefore, the Project will have no potential to result in a safety hazard or excessive noise for people residing or working in the project area, and no mitigation is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Response: *Less Than Significant Impact*

According to the City's General Plan EIR, the City of Moreno Valley uses the Standardized Emergency Management System (SEMS) when responding to emergencies. The system was established to provide an organized, systematic approach in responding to disaster

events. The system includes the following phases: preparedness, response, recovery, and mitigation. The proposed Project is located along Cottonwood Avenue just east of Perris Boulevard. It is not anticipated that development of the project site would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan because the site activities will be confined within the proposed project site. The proposed onsite parking and circulation plans will be reviewed by the local Fire Department and City Engineering Department to ensure that the Project's ingress/egress are adequate for accommodating emergency vehicles. Therefore, through compliance with the City's established emergency response plans and through review of the Project by the Fire Department and City Engineering Department, there is a less than significant potential for the development of the Project to physically interfere with any adopted emergency response plans, or evacuation plans.

g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Response: ***No Impact***

According to the CAL FIRE Fire Hazard Severity Zone (FHSZ) Map, the proposed Project is not located within a high fire hazard zone. Much of the very high fire hazard severity zone within the City is located adjacent to or within hillsides located to the northern and southwestern boundaries of the City (reference **Figure 9-3,** ***Fire Hazard Severity Zones***). Therefore, Project implementation would not result and a potential to expose people or structures to fire hazards. Potential Project-related impacts are less than significant; no mitigation measures are required.

Mitigation Measures

MM-HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the project development.

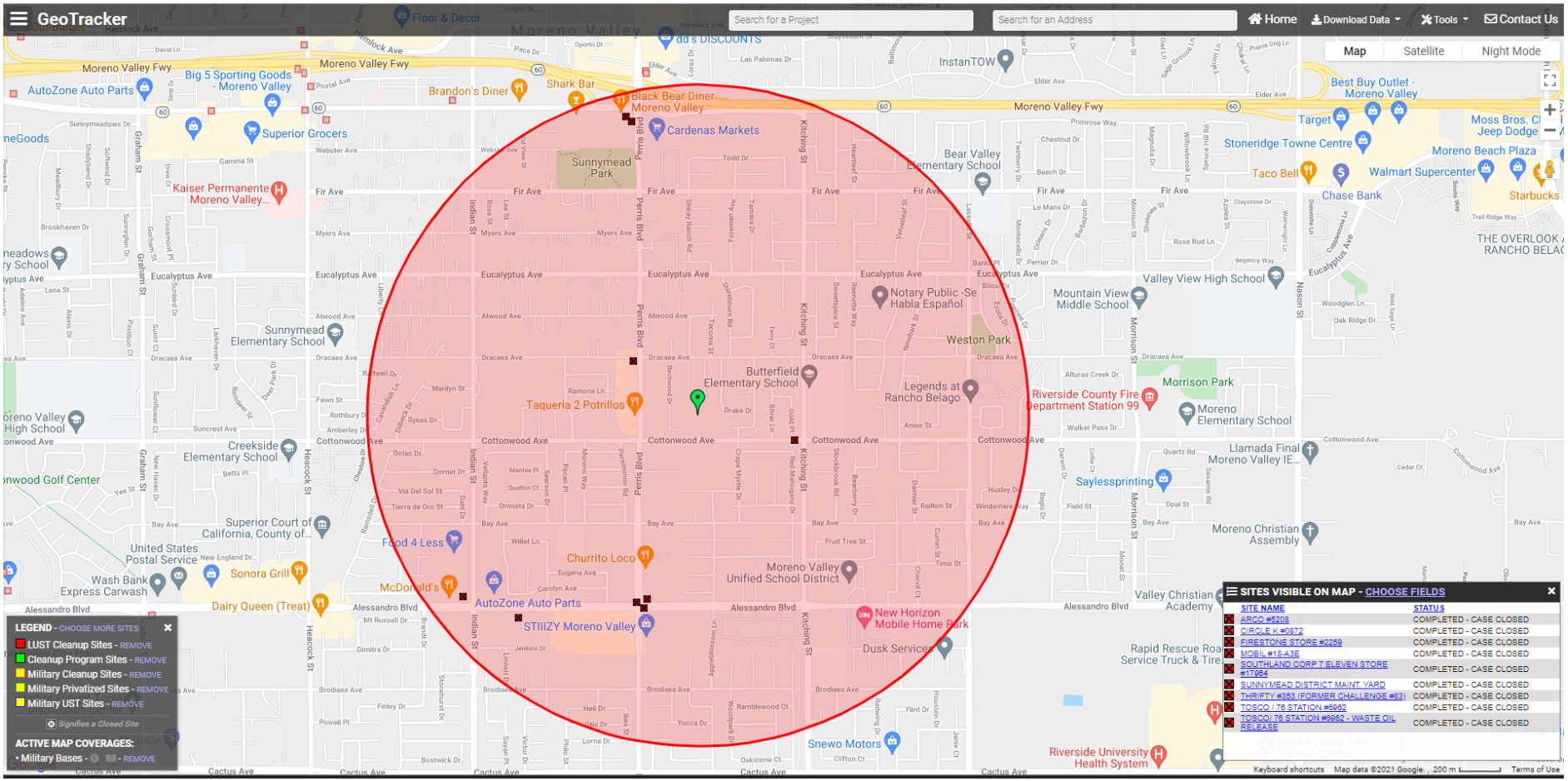
Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Moreno Valley General Plan, adopted July 11, 2006
   - Chapter 6 – Safety Element – Section 6.2.8 – Wildland Urban Interface
   - Chapter 6 – Safety Element – Section 6.9 – Hazardous Materials
   - Chapter 6 – Safety Element – Section 6.10 – Air Crash Hazards
     - Figure 6-5 – Air Crash Hazards
4. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
   - Section 5.5 – Hazards and Hazardous Materials
     - Figure 5.5-1 – Hazardous Materials Sites
     - Figure 5.5-2 – Floodplains and High Fire Hazard Areas
     - Figure 5.5-3 – City Areas Affected by Aircraft Hazard Zones
5. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
6. March Air Reserve Base (MARB)/March Inland Port (MIP) Airport Land Use Compatibility Plan (ALUCP) on November 13, 2014, (http://www.rcaluc.org/Portals/13/17%20-

%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700)

7. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017
   http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   - Chapter 5 – Wildland and Urban Fires
     - Figure 5-2 – Moreno Valley High Fire Area Map 2016
   - Chapter 12 – Dam Failure/Inundation
     - Figure 12-2 Moreno Valley Evacuation Routes Map 2015
   - Chapter 13 – Pipeline
     - Figure 13-1 – Moreno Valley Pipeline Map 2016
   - Chapter 14 – Transportation
     - Figure 14-1.1 – Moreno Valley Air Crash Hazard Area Map 2016
   - Chapter 16 – Hazardous Materials Accident
     - Moreno Valley Hazardous Materials Site Locations Map 2016
8. Emergency Operations Plan, City of Moreno Valley, March 2009 http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   - Hazard Mitigation and Hazard Analysis
   - Threat Assessment 2 – Hazardous Materials
   - Threat Assessment 3 – Wildfire
   - Threat Assessment 6 – Transportation Emergencies
     - Figure 17 – Air Crash Hazards
9. CALFIRE FHSZ Viewer: https://egis.fire.ca.gov/FHSZ/
10. *Phase I Environmental Site Assessment*, prepared by GeoTek, Inc., 12-23-2020 (*Phase I ESA*, **Appendix E**)

FIGURE 9-1
GEOTRACKER



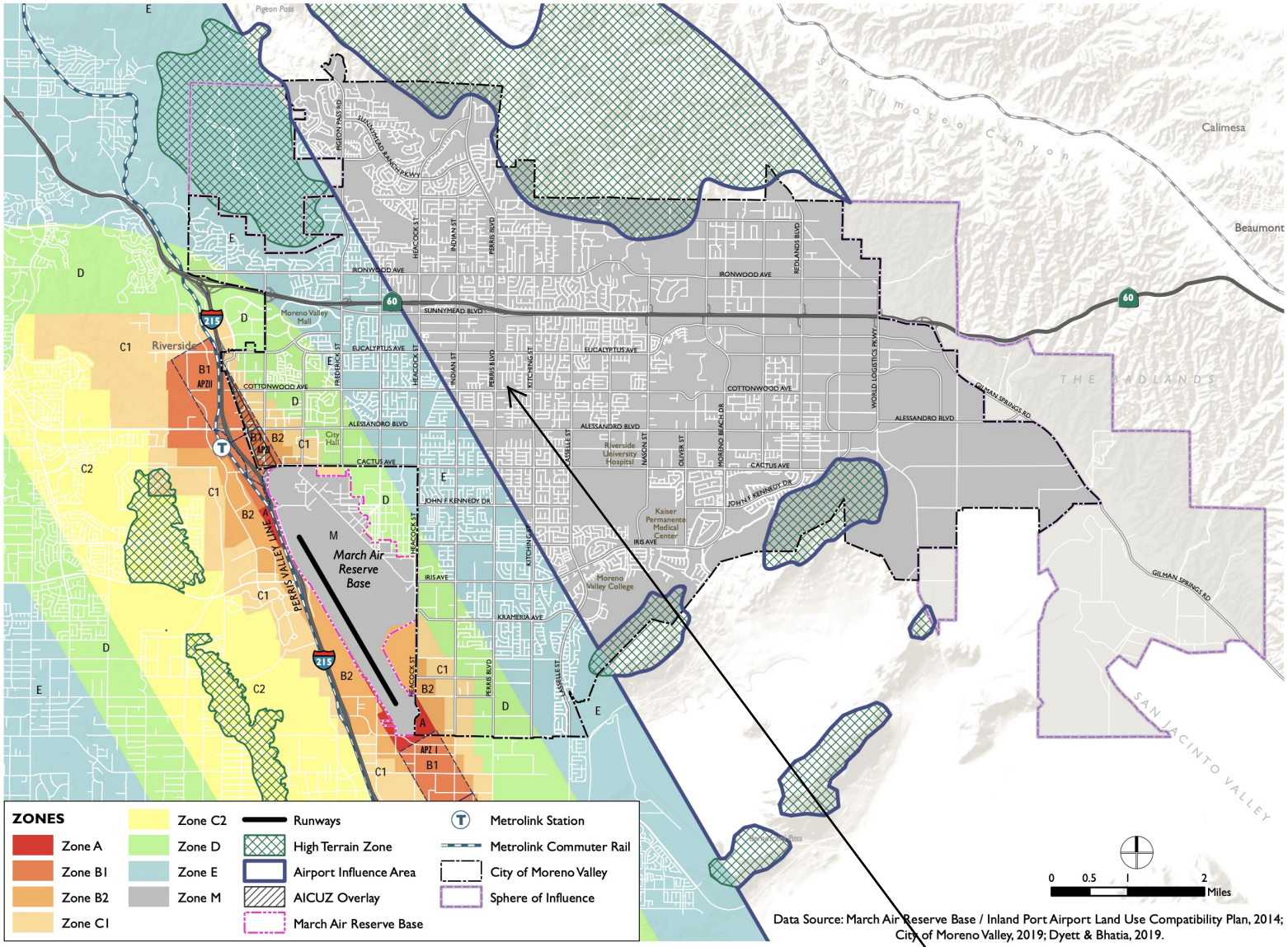
Source: https://geotracker.waterboards.ca.gov/map/

SITE

SITES VISIBLE ON MAP - CHOOSE FIELDS

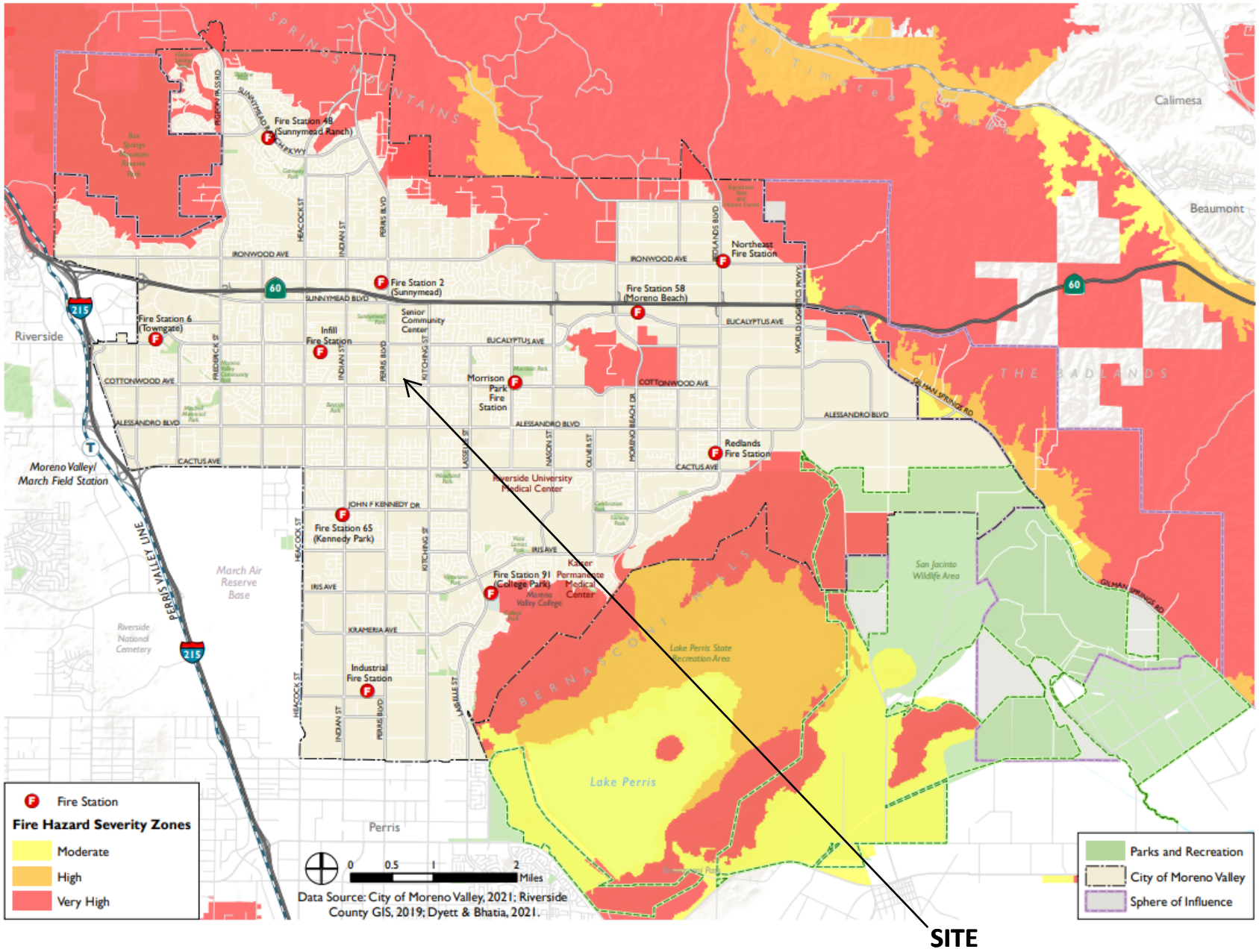
SITE NAME	STATUS
ARCO #5208	COMPLETED - CASE CLOSED
CIRCLE K #0872	COMPLETED - CASE CLOSED
FIRESTONE STORE #2259	COMPLETED - CASE CLOSED
MOBIL #18-A3E	COMPLETED - CASE CLOSED
SOUTHLAND CORP 7 ELEVEN STORE #17964	COMPLETED - CASE CLOSED
SUNNYMEAD DISTRICT MAINT. YARD	COMPLETED - CASE CLOSED
THRIFTY #353 (FORMER CHALLENGE #83)	COMPLETED - CASE CLOSED
TOSCO / 76 STATION #6962	COMPLETED - CASE CLOSED
TOSCO/ 76 STATION #6962 - WASTE OIL RELEASE	COMPLETED - CASE CLOSED

FIGURE 9-2
AIRPORT LAND USE COMPATIBILITY ZONE



Source: City of Moreno Valley GP – http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html

FIGURE 9-3
FIRE HAZARD SEVERITY ZONE



Source: City of Moreno Valley GP – http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html

10. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

The proposed project is located within the planning area of the Santa Ana Regional Water Quality Control Board (RWQCB). The project would be supplied with water by Eastern Municipal Water District (Eastern or EMWD) that uses a mix of groundwater and imported surface water to meet customer demand.

For a developed area, the only three sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater, stormwater runoff, and potential discharges of pollutants, such as accidental spills. Municipal wastewater is delivered to one of Eastern's five regional water reclamation facilities which treat 46 million gallons of wastewater per day. The District is responsible for the collection, transmission, treatment, and disposal of wastewater within its service area, which includes the City of Moreno Valley, California.

To address stormwater and accidental spills within this environment, any new project must ensure that site development implements a Storm Water Pollution Prevention Plan (SWPPP) to control potential sources of water pollution that could violate any standards or discharge requirements during construction and a Water Quality Management Plan (WQMP) to ensure that project-related after development surface runoff meets discharge requirements over the short- and long-term. The WQMP specifies stormwater runoff permit BMPs requirements for capturing, retaining, and treating on site stormwater once the apartment units have been occupied. Because the project site consists of pervious surfaces, the project has identified onsite drainage that will generally be directed to the onsite retention ponds that will be developed as part of the project. The SWPPP would specify the BMPs that the project would be required to implement during construction activities to ensure that all potential water pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. With implementation of these mandatory Plans and their BMPs, as well as **Mitigation Measure MM-HYD-1**, the development of Cottonwood Village Project will not cause a violation of any water quality standards or waste discharge requirements.

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

Response: ***Less Than Significant Impact***

Implementation of the proposed project will not deplete groundwater supplies that would substantially affect the water availability for existing or planned land uses or biological resources. It is anticipated that, based on previous studies at the project site, the potential to intercept groundwater during grading of both the project site and offsite roadway improvements is considered to be less than significant. The San Jacinto Groundwater Basin, which encompasses most all of the City of Moreno Valley, includes two management zones: 1) the Perris South Management Zone, and 2) the Menifee Management Zone. The groundwater basin would not be physically altered or impacted as a result of the proposed project, particularly given that the *Geotechnical Evaluation*

only encountered groundwater at a 31-foot depth, with no evidence of seepage at surface level of the site.

The Cottonwood Village Project is a residential project that will consist of 92 3-bedroom townhouses. The project would be supplied with water by Eastern, which uses imported water from the Metropolitan Water District of Southern California (MWD), local groundwater, and recycled water to meet customer demand. Using imported surface water helps prevent overdraft of local groundwater basins. The District's 2020 Urban Water Management Plan (UMWP) identifies sufficient water resources to meet demand in its service area. The total retail water supply for Eastern in 2020 for retail customers, was 124,314 acre-feet per year (AFY) inclusive of both potable and recycled water, while the demand for both potable and recycled water was 121,057 AFY. According to Eastern, multi-family uses accounted for 5.4% of the overall potable water demand in 2020, equal to 6,535 AFY. EMWD served a population of 603,950 persons in 2020 (retail service), given that the average household size in the City of Moreno Valley is 3.9 persons (per SCAG), the proposed project is anticipated to house a population of about 359 persons. According to EMWD's UWMP, EMWD's actual 2020 per capita use is 129 gallons per capita per day (GPCD). Based on the above, the population generated by the proposed project would demand 46,311 gallons per day (GPD) (129 x 359 = 46,311 GPD) equal to about 51.87 AFY of water from EMWD. Based on the projected water demand for multi-family units within EMWD's retail service area in 2025 at 62,970 AFY and in 2045 at 64,400 AFY, it is anticipated that the 51.87 AFY demand by the project can be accommodated into the future, particularly given that the overall available retail water supply is anticipated to be 145,930 AFY in 2025 and 187,100 AFY in 2045. The anticipated available water supply within Eastern's retail service area is anticipated to be greater than the demand for water in the future, which indicates that Eastern has available capacity to serve the proposed project without significant adverse impacts on area groundwater basins.

The *Preliminary Hydrology Study*, *Geotechnical Evaluation*, and *WQMP* indicate that the infiltration rate for the project is 0.3 inches per hour, which suggests that infiltration is not feasible for this project due to the slow rate of infiltration at the site at present. The slow infiltration rate suggests that this site does not represent a significant groundwater recharge site for the San Jacinto Groundwater Basin. Therefore, the development of the project will, therefore, not substantially interrupt the existing percolation of the site, or any flow of groundwater under the project site. No significant adverse impacts to groundwater resources are forecast to occur from implementing the proposed project. No mitigation is required.

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?	☐	☒	☐	☐

Response: *Less Than Significant With Mitigation Incorporated*

The proposed project is not anticipated to significantly change the volume of flows downstream of the project site and would not be anticipated to change the amount of surface water in any water body in an amount that could initiate a new cycle of erosion or sedimentation downstream of the project site. There are no streams or rivers within, contiguous to, or adjacent to the project site.

Impacts under this issue could occur during both construction and operation of the proposed project. Please refer to the discussion under Subchapter 7, Geology and Soils of this Initial Study under issue b, which discusses the potential for erosion during

construction, and requires **Mitigation Measures MM-GEO-1** and **MM-GEO-2** to minimize the potential for erosion during construction.

In comparison with existing conditions, the proposed project development plan would cause the project site surface area to be more impervious than the current site condition. Under current conditions, the project site consists of 100% pervious surfaces with slow percolation. It is assumed, the proposed project will reduce the pervious surface area substantially compared to that which exists at present. Any decrease in pervious area would change (increase) the volume of runoff during a storm, which would more effectively transport pollutants to receiving waters.

The onsite drainage system will capture the incremental increase in runoff from the project site associated with project development. To mitigate the increase of flow coming from the project, multiple biofiltration trenches with the capacity to store up to the volume required to match and reduce the maximum cubic feet per second (CFS) exiting the site (Refer to the *Preliminary Hydrology Study*). The *Preliminary Hydrology Study* and *Geotechnical Evaluation* determined that infiltration is not feasible for this project, so the project will use multiple biofiltration trenches. Project offsite flows will then be routed through the project site and into Sunnymead Line P in Cottonwood Avenue. Surface runoff will be discharged in conformance with Riverside County and City of Moreno Valley requirements. The downstream drainage system will not be substantially altered given the control of future surface runoff from the project site; thus, the potential for downstream erosion or sedimentation will be controlled to a less than significant impact level with mitigation to address the potential for erosion during construction.

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

Response: ***Less Than Significant Impact***

The proposed project will not alter the existing drainage courses or patterns onsite but will maintain the existing offsite downstream drainage system through control of future discharges from the site through the bioretention trenches, which would prevent flooding onsite or offsite from occurring. The onsite drainage system will capture the incremental increase in runoff from the project site associated with project development. To mitigate the increase of flow coming from the project, multiple biofiltration trenches with the capacity to store up to the volume required to match and reduce the maximum CFS exiting the site. The *Preliminary Hydrology Study* and *Geotechnical Evaluation* determined that infiltration is not feasible for this project, as such, the project will use minimal inlets and storm drainpipes where needed to direct the flow to the new basin. Project offsite flows will be routed through the project site and into Sunnymead Line P in Cottonwood Avenue. Surface runoff will be discharged in conformance with Riverside County and City of Moreno Valley requirements and as described in the *WQMP*. Thus, the implementation of onsite drainage improvements and applicable requirements included in the WQMP will ensure that stormwater runoff will not substantially increase the rate or volume of runoff in a manner that would result in substantial flooding on- or off-site. Impacts under this issue are considered less than significant with no mitigation required.

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?	☐	☒	☐	☐

Response: ***Less Than Significant With Mitigation Incorporated***

The proposed project will alter the site such that stormwater runoff within the site will be increased but will maintain the existing off-site downstream drainage system through control of future discharges from the site. This would prevent the project from exceeding the capacity of existing or planned stormwater drainage systems and from providing substantial additional sources of polluted runoff. The drainage throughout the project site will be captured and treated through multiple biofiltration trenches with the capacity to store up to the volume required to match and reduce the maximum CFS exiting the site. The *Preliminary Hydrology Study* and *Geotechnical Evaluation* determined that infiltration is not feasible for this project, as such, the project will use minimal inlets and storm drainpipes where needed to direct the flow to the new basin. These systems will be designed to capture the flows above the peak 100-year flow runoff from the project site without development or otherwise be detained on site and discharged in conformance with Riverside County requirements. Varying amounts of urban pollutants, such as motor oil, antifreeze, gasoline, pesticides, detergents, trash, animal wastes, and fertilizers, could be introduced into downstream stormwater. However, the proposed project is not anticipated to generate discharges that would require pollution controls beyond those already designed into the project and/or required by the City as a standard operating procedure to meet water quality management requirements from the RWQCB. The proposed development would install drainage improvements, including the bioretention trenches, and connect to existing the drainage system downstream. The project is not anticipated to result in a significant adverse impact to water quality or flows downstream of the project with implementation of mitigation outlined below.

The City and County have adopted stringent best management practices designed to control discharge of non-point source pollution that could result in a significant adverse impact to surface water quality. The City has identified BMPs that when implemented, can ensure that neither significant erosion and sedimentation, nor other water quality degrading impacts will occur as a result of developing the project. Although BMPs are mandatory for the project to comply with established pollutant discharge requirements, **Mitigation Measure MM-HYD-1** is designed to establish a performance standard to ensure that the degree of water quality control is adequate to ensure the project does not contribute significantly to downstream water quality degradation.

Compliance will also be ensured through fulfilling the requirements of a SWPPP and WQMP monitored by the City and the RWQCB. The SWPPP must incorporate the BMPs that meet the performance standard established in **Mitigation Measure MM-HYD-1** for both construction and occupancy stages of the project. Thus, the implementation of onsite drainage improvements and applicable requirements will ensure that that drainage and stormwater will not create or contribute runoff that would exceed the capacity of existing or planned offsite stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts under this issue are considered less than significant with mitigation required.

iv) Impede or redirect flood flows?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

As shown on the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) #06065C0761G, (see **Figure 10-1, *FEMA Map***) the project site is located within Zone X, which represents an area with minimal flood hazard. Furthermore, development of this site is not anticipated to redirect or impede flood flow at the project site, particularly given that surface flows on site will be directed to the onsite drainage features which will be capable of intercepting the peak 100-year flow rate from the project site or otherwise be detained on site and discharged in conformance with City

and Riverside County requirements. Therefore, impacts under this issue are considered less than significant and no mitigation is required.

d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

Response: ***No Impact***

As discussed above, and as shown on **Figure 10-1**, the project site is located within Zone X, which represents an area with minimal flood hazard. The project site is located approximately 42 miles from the nearest coastline (Pacific Ocean); therefore, the risk associated with tsunamis is minimal. Similarly, the project site not located adjacent to a body of water as the project site is located approximately 4.6 miles to the north of Lake Perris, and therefore the risk of seiche impacting the proposed project is minimal. Based on the above, the risk of pollutant release due to project inundation caused by a flood, tsunami, or seiche is not applicable and no impacts are anticipated.

e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The project *WQMP* has been prepared specifically to comply with the requirements of the City of Moreno Valley and the County of Riverside for Ordinance No. 754.2 which includes the requirement for the preparation and implementation of a project-specific WQMP.

The project site is located in the Santa Ana River Watershed, within the jurisdiction of the Santa Ana Regional Water Quality Control Board, where discharges from Riverside County's Phase I MS4s are regulated through the Riverside County MS4 Permit (Order No. R8-2010-0033 NPDES No. CAS618033, as amended by Order No. R8-2013-0024) pursuant to section 402(p) of the Federal Clean Water Act.

The proposed Cottonwood Village Project site overlies the San Jacinto Groundwater Basin.[5] The San Jacinto Groundwater Basin is considered high priority by the Sustainable Groundwater Management Act (SGMA) and Department of Water Resources (DWR). The San Jacinto Groundwater Basin is deemed a high priority basin, but not critically overdrafted, by DWR, and the Groundwater Sustainability Plan (GSP) is required to be developed by 2022 and implemented by 2042. The GSP will document basin conditions and basin management will be based on measurable objectives and minimum thresholds defined to prevent significant and unreasonable impacts to the sustainability indicators defined in the GSP. Water consumption and effects in nearby trenches indicates that the proposed project's water demand is considered to be less than significant. By controlling water quality during construction and operations through implementation of both short- (SWPPP) and long- (WQMP) term best management practices at the site, no potential for conflict or obstruction of the Regional Board's water quality control plan has been identified.

Mitigation Measures

[5] https://gis.water.ca.gov/app/bbat/

MM-HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the project development.

MM-GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup such that erosion does not occur.

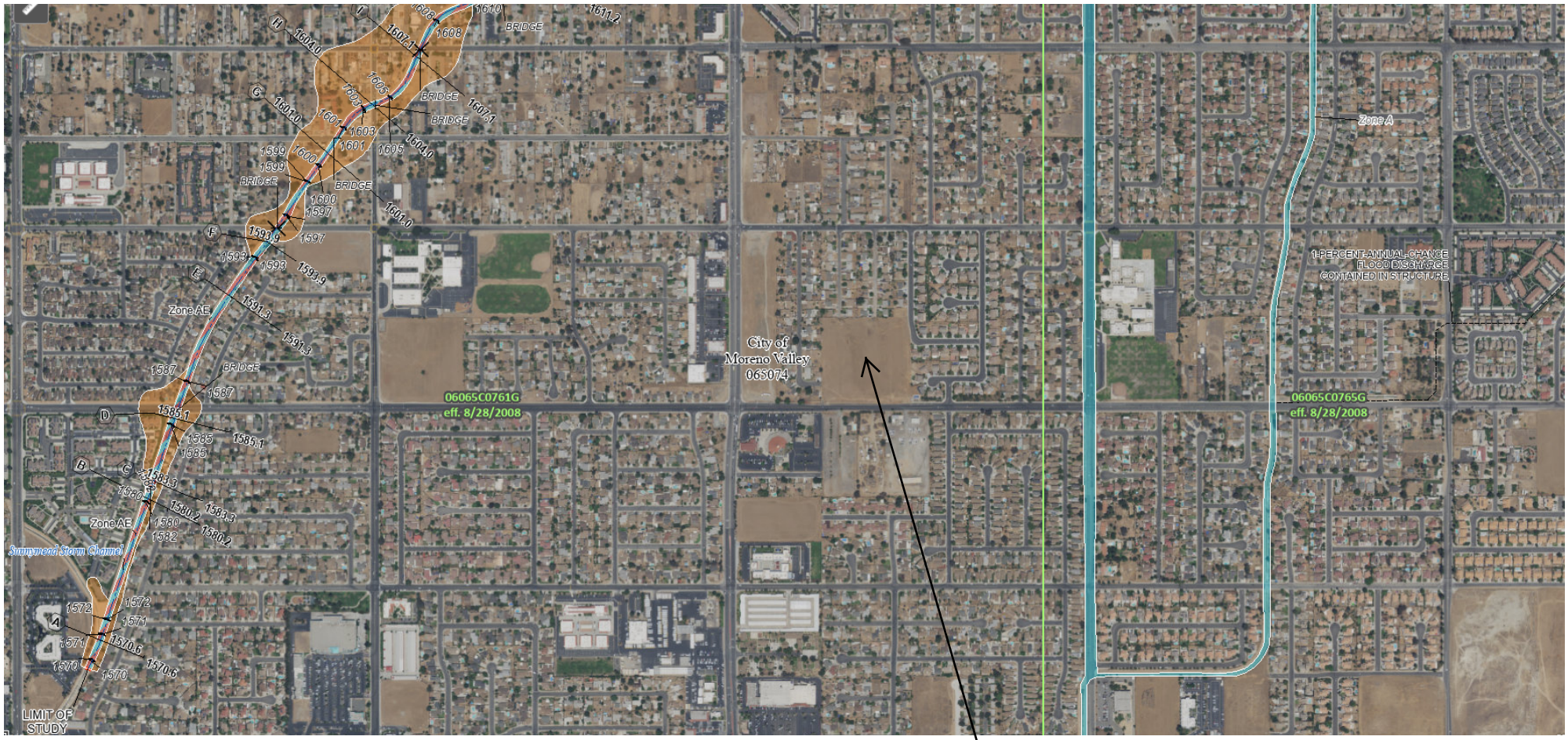
MM-GEO-2 All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the Cottonwood Village Project is being constructed.

MM-HYD-1 The project proponent will select best management practices from the range of practices identified by the City and reduce future non-point source pollution in surface water runoff discharges from the site to the maximum extent practicable, both during construction and following development. The Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP) shall be submitted to the City for review and approval prior to ground disturbance and the identified BMPs installed in accordance with schedules contained in these documents.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code Section 9.10.080 – Liquid and Solid Waste
4. Moreno Valley Municipal Code Chapter 8.12 – Flood Damage Prevention
5. Moreno Valley Municipal Code Chapter 8.21 – Grading Regulations
6. Eastern Municipal Water District (EMWD) Groundwater Reliability Plus, http://gwrplus.org/
7. Eastern Municipal Water District (EMWD) 2020 Urban Water Management Plan
8. California Department of Water Resources Groundwater Basin Boundary Assessment Tool: https://gis.water.ca.gov/app/bbat/
9. Southern California Association of Government, *Profile of the City of Moreno Valley* https://scag.ca.gov/sites/main/files/file-attachments/morenovalley_localprofile.pdf?1606013528
10. *Preliminary Hydrology Study*, prepared by Blue Engineering and Consulting, Inc., 1-4-2022 (**Appendix F1**)
11. *Project Specific Water Quality Management Plan,* prepared by Blue Engineering and Consulting, 1-12-2022 (**Appendix F2**)
12. *Geotechnical Evaluation,* prepared by GeoTek, Inc., 4-10-2014 (**Appendix D1**)

FIGURE 10-1
FEMA MAP



Source: FEMA – https://msc.fema.gov/portal/home

11. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The project site is relatively flat. The site topography appears to have a low spot at the southeast corner of the property; there is an estimated 6 feet of elevation differential across the site. Topographically, the project site ranges from approximately 1,588 to approximately 1,593 feet above mean sea level (msl). The project site is bounded by existing residential development to the north and west, Cottonwood Avenue to the south and Patricia Lane and residential development to the east.

Cottonwood Avenue currently allows east-west access along the southern boundary of the project site for the existing residential neighborhoods to the west, south and east. Cottonwood will provide more complete access for vehicles, pedestrians, bicyclists, and equestrians through this area.

In addition, the project does not propose construction of any roadway, permanent flood control channel, or other structure that will physically divide established portions of the community in this portion of Moreno Valley.

In these ways the proposed project will not divide an established community but rather provide additional road and non-vehicular connections that will allow for better access for the established residential neighborhoods east and south of the site. Therefore, the project will have less than significant impacts in this regard and no mitigation is required.

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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

<u>Project</u>

There are 19 single family lots surrounding the Project site, 15 of which appear to be single story homes – the four two-story homes are near the southeast corner of the site. The Project plans and architectural illustrative application materials indicate the project will have 23 two-story buildings each containing 4 townhouse units (total 92 units on 9 acres or 10.2 units per gross acre compared to the maximum density of 15-25 units/acre of the COMU designation). The 4-plex buildings will be distributed throughout the project site as shown in **Figure 5, *Site Plan***, in Section I of this IS. There will be six 4-plex buildings along each of the east, north, and west boundaries of the site and the buildings will be of similar size to many of the large single-family homes adjacent to the site. However, all of the 4-plex buildings will be two-story and most of the existing adjacent single-family residences are one-story (except four two-story homes near the southeast portion of the site). The proposed townhouse project is not fully consistent with the existing single family land use and zoning designation to the north and northeast (R5); however, this is only due to the project's scale. The surrounding development is single-family residential detached dwelling units, and the project is multi-family attached dwelling units. Adequate buffers have been provided between the existing and proposed residential uses. In addition, the project site has been designated for higher density residential uses (i.e.,R10 with 10 units/acre) going back to when the previous 2006 General Plan

was adopted. The Project buildings will have Craftsman design elements, in two complementary styles, and will be generally consistent with the existing 2040 General Plan and zoning designations given the length of time the Project site has been designated for higher density use compared to the adjacent areas to the north and northeast. The Project is consistent with the land use designations and zoning to the west along Perris Boulevard, to the south, and southeast, and east of Perris Boulevard, all designated Corridor Mixed Use.

The surrounding General Plan land use and zoning designations of the site and surrounding area are described in **Table 1, *Project Site and Surrounding Land Uses*** and shown in **Figure 3, *Existing and Proposed General Plan Land Use Designations*** and **Figure 4, *Existing and Proposed Zoning Classifications***, all provided in Section I of this IS.

General Plan

The City's General Plan Land Use Element contains goals and objectives that are applicable to the proposed Project. **Table 11-1, *General Plan Consistency Analysis*** provides a consistency analysis of the Project to these goals and objectives.

The recently adopted General Plan Land Use Map now designates the project site as corridor mixed use (COMU). This designation provides for a mix of housing with supporting retail and services that cater to the daily needs of local residents. Permitted uses include housing, retail, restaurants, personal services, public uses, and professional business offices. Retail uses should be concentrated at intersections and limited to no more than 25 percent of the maximum permitted FAR, excluding parking. A mix of uses is not required on every site but is desired on sites at intersections in order to foster nodes of commercial mixed-use development along the corridor. Mixed use may be in either a vertical format (multiple uses in the same building) or horizontal format (multiple single-use buildings on the same parcel). The allowable residential density is 15-25 dwelling units per acre, with densities on the lower end of that range where proposed development abuts existing low density residential development. Maximum permitted FAR for commercial uses is 1.0. On smaller parcels, additional FAR may be permitted to achieve the desired vision for the area.

Table 11-1
General Plan Consistency Analysis

General Plan Goals and Objectives	Consistency Analysis
LUCC-1: Establish an identifiable city structure and a flexible land use framework that accommodates growth and development over the planning horizon.	**Consistent.** The project provides housing types that are in demand in the City.
LUCC-4: Expand the range of housing types in Moreno Valley and ensure a variety of options to suit the needs of people of all ages and income levels.	**Consistent.** The housing types provided by the project furthers the goal of the General Plan by providing another option of housing for different income levels.
SAF-1: Protect life and property from natural and human made hazards.	**Consistent.** Section 9, Hazards and Hazardous Materials and Section 15, Public Services, of this document analyzes the hazards that may impact this community. The project will pay various DIFs, a portion of which will go towards funding police and fire protection services. There are no unusual threats to public safety, either from manmade or natural sources. Therefore, the project implements this policy.
EJ-1: Reduce pollution exposure and improve community health.	**Consistent.** This CEQA document concludes that this Project helps reduce pollution and improves community health. In part, this is accomplished due to the proximity of the project to commercial centers and hospitals. Therefore, the project helps the City further reach this goal.
EJ-2: Safe and sanitary housing for Moreno Valley residents of all ages, abilities, and income levels.	**Consistent.** The project provides a housing type and price ranges that contribute to a diverse housing stock that offers a full range of housing opportunities for Moreno Valley residents and supports the local economy.
EJ-3: Expand access to high-quality, fresh and healthy food.	**Consistent.** At its closest point, the Project is located approximately 3/4 mile from the nearest commercial center to the southwest. That commercial center has a grocery retail outlet. Therefore, the future residents of the project will have close proximity to high-quality, fresh and healthy food. Therefore, the project furthers the City's achievement towards this goal.
T-4: Provide convenient and safe connections between neighborhoods and destinations within Moreno Valley.	**Consistent.** The project includes a sidewalk system within the Project, as well as pedestrian connections to the Cottonwood Avenue. Therefore, the project implements this goal.
T-5: Enhance the range of transportation options in Moreno Valley and reduce vehicle miles travelled.	**Consistent.** At its closest point, the Project is located approximately 3/4 mile from the nearest shopping center to the southwest. Introducing residential neighborhoods to shopping and employment centers helps reduce Vehicle Miles Travelled (VMT). According to Section 17, Transportation, of this document it was concluded that this Project would have a less than significant impact on VMT

Source: Moreno Valley General Plan, July 2021

As shown in **Table 11-1**, the project is consistent with the various General Plan goals and objectives. For a comparison of the project to existing General Plan land use classifications, see the discussion of "land use compatibility" below.

Zoning

The City Zoning Map proposes overall zoning of Corridor Mixed Use (COMU) which allows up to 25 units per acre on the Project site (range 15-25 units/acre). According to the General Plan…"the primary purpose of areas designated COMU is to "create vibrant boulevards that are both a destination and a place where people can work and live. This will consist of buildings that emphasize street-oriented frontages, pedestrian-scaled buildings, creative use of open spaces and building design, and engaging, well-crafted areas for pedestrian activity such as plazas and walkways. The integration of residential and commercial uses into a mix of vertical and horizontal buildings will encourage businesses to relocate and establish a presence in Moreno Valley whereby pedestrians will work, live, shop and enjoy an array of entertainment experiences. The mixed-use corridors will facilitate transit and bicycle use, and pedestrian activity. This designation allows for residential densities from fifteen (15) dwelling units per acre up to twenty-five (25) dwelling units per acre." (CMVMC 9.07.010). For a comparison of the project to existing zoning designations, see the discussion of "land use compatibility" below.

Land Use Compatibility

The project is proposing a variety of residential uses which will be visually consistent and compatible with existing and proposed surrounding land uses (see **Figure 8, *Elevations***, provided in Section I of this IS). The proposed townhouse project is not fully consistent with the existing single family residential land use and zoning designation to the north and northeast (R5); however, this is only due to the project's scale. The surrounding development is single-family residential detached dwelling units while the Project is multi-family attached dwelling units. Project plans show that larger units have been provided as buffers between the existing and other proposed residential uses. In addition, the project site has been designated for higher density residential use (R10) since the 2006 General Plan was adopted. The project buildings will have Craftsman design elements and will be generally consistent with the surrounding General Plan and zoning designations given the length of time the project site has been designated for higher density use compared to the surrounding area. It should be noted the Project site is designated for Corridor Mixed Use in the new 2040 General Plan, and surrounding areas to the west, southwest, south, southeast, and east now have that same land use designation and zoning.

The preceding analysis indicates the land uses of the proposed project is generally consistent with existing and planned land uses surrounding the Project site by the placement of larger lots adjacent to existing housing, preservation of one-third of the site as permanent open space, and providing streets, landscaping, or detention trenches as buffers between the proposed housing and existing or planned residential uses.

The proposed project will create a new residential community on vacant land in an area developing with mainly residential uses but at higher densities than exist at present in the area. The project will provide for a much wider variety of housing than is presently available in this portion of the City. Based on its layout and design, the project will not result in a significant environmental impact due to a conflict with

any applicable land use plan, policy, or regulation of an agency with jurisdiction adopted for the purpose of avoiding or mitigating an environmental effect. With implementation of the project, impacts in this regard will be less than significant and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
2. Google Maps, www.google.com/maps
3. Project Plans (**Appendix I**)

12. MINERAL RESOURCES – Would the project:				
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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The California Surface and Mining Reclamation Act (SMARA) of 1975 requires local governments to address mineral recovery activities through the direct regulation of mining operations, and through planning policies that balance the mineral resources needs of the state with the maintenance of environmental quality. SMARA requires cities and counties to adopt ordinances conforming to state policy for the review and approval of reclamation plans and permits to conduct surface mining operations.

The California Geological Survey has prepared mineral resource reports designating the mineral deposits of statewide or regional significance. These reports are to be used to address mineral resources within the City. The State Geologist has classified areas into Mineral Resource Zones (MRZ) identifying the statewide or regional significance of mineral deposits based on the economic value and accessibility of the deposits.

According to the General Plan EIR the Project site is designated as MRZ-3 (and for which the significance of mineral resources cannot be determined). The MRZ category is not considered to contain significant mineral resources

No regionally or statewide significant mineral resources are located within the City. Implementation of the proposed project would not result in the loss of availability of a known mineral resource. Any potential impacts would be less than significant.

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?	☐	☐	☐	☒

Response: ***No Impact***

Please reference the discussion in Threshold 12.a. There are no mineral extraction or process facilities on or near the site. No mineral resources are known to exist within the vicinity. No impacts will occur.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) https://www.conservation.ca.gov/dmr/lawsandregulations

13. NOISE – Would the project result in:				
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?	☐	☐	☒	☐

Response: ***Less Than Significant***

Introduction

Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...". In general, the healthy human ear is most sensitive to sounds between 1,000 Hertz (Hz or cycles per second) and 5,000 Hz on the A-weighted scale which is most like the range of human hearing. For purposes of this analysis, the A-scale weighing is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in the noise level of 3 dB, a change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level. **Figure 13-1, *Typical Noise Levels*** shows the relative noise levels of various common urban activities.

City Noise Standards

The City of Moreno Valley Municipal Code Chapter 11.80, Noise Regulation, requires that a project shall not create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness. Noise standards are defined in Table 11.80.032-2 of the Noise Regulation of the Municipal Code and are applicable to the Project site and surrounding noise sensitive uses. **Table 13-1, *Municipal Code Noise Standards*** shows the exterior noise standards from the City's Municipal Code Chapter 11.80 Noise Regulation Exterior Noise Standards applicable to the Project site and surrounding residential land uses.

Table 13-1
Municipal Code Noise Standards

Exterior Residential Noise Standard	Time Period
60 dB (A)	8:00 AM – 10:00 PM
55 dB (A)	10:00 PM – 8:00 AM

[1] MVMC Section11.80.030. No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any non-impulsive sound which exceeds theselimits when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if thesound occurs on public right-of-way, public space or other publicly owned property.

Chapter 11.80 Noise Regulation of the City's Municipal Code also states that the following activities shall be prohibited from the provisions of the noise code:

No person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee.

Significance Thresholds

Utilizing the guidance from the City's General Plan, the Noise Study identifies a significant noise impact when operational activities cause an increase in ambient noise levels of 5 dBA or more and the resulting noise level exceeds 60 dBA CNEL/Ldn. For construction noise, the FTA Transit Noise and Vibration Impact Assessment (2006) criteria is used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA Leq for an 8-hour period.

Ambient Conditions

Four long-term (LT) noise monitoring locations were selected based on the proximity and location to adjacent sensitive receptors. **Figure 13-2, *Noise Monitoring Locations*** shows the long-term (LT) measurements locations. LT-1 was located along the north of the Project site near existing single-family residential home at 13371 Bencliff Avenue, north of the Project site. LT-2 was located along the east side of the Project site near existing single-family residential home at 25251 Drake Drive. LT-3 was located south of the Project site near existing single-family residential home at 25165 Cottonwood Avenue, south of the Project site. LT-4 was located west of the Project site near existing single-family residential home at 13360 Birchwood Drive.

Five receiver locations (R) were selected based upon FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA.

R1: Location R1 represents the existing noise sensitive residence located at 13371 Bencliff Avenue north of the Project site. R1 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement near this location, L1, is used to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive residence located at 25251 Drake Drive east of the Project site. R2 is placed in the private outdoor living areas (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing noise sensitive residence located at 25165 Cottonwood Avenue, south of the Project site. R3 is placed at the building façade facing the Project site. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment.

R4: Location R4 represents the existing Saint Christopher Parish located at 25075 Cottonwood Avenue south of the Project site. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment.

R5: Location R5 represents the existing noise sensitive residence located at 13410 Birchwood Drive west of the Project site. A 24-hour noise measurement near this location, L4, is used to describe the existing ambient noise environment.

Project Impacts

Construction

This assessment analyzes potential noise impacts during all expected phases of construction, including site preparation, grading, building construction, paving, and architectural coating. Noise levels are calculated based on an average distance of equipment over an 8-hour period to the nearest adjacent property. **Table 13-2, *Construction Noise Level Compliance*** shows the noise levels at the receiver locations. Project construction noise levels are expected to be below the recommended 8-hour construction noise threshold.

Table 13-2
Construction Noise Level Compliance

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	78.3	80	No
R2	78.5	80	No
R3	71.9	80	No
R4	65.7	80	No
R5	77.7	80	No

1 Noise receiver locations are shown on Figure 13-2.
2 Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations.
3 Construction noise level thresholds as established by the City of Moreno Valley General Plan.
4 Do the estimated Project construction noise levels exceed the construction noise level threshold?

Operation

This assessment analyzes the anticipated noise levels generated by the Project and impacts caused by changes to the ambient environment. The main sources of noise generated by the Project would include outdoor play areas (i.e., tot lots / turf grass), pool activity, trash enclosures, parking lots, and vehicular traffic noise along the adjacent roadways. Noise level impacts are compared to the City of Moreno Valley noise standards. The Project must demonstrate that noise levels generated by the Project site would not result in a 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. **Table 13-3, *Operational Noise Level Compliance*** shows the Project's on-site operational noise level impact to the established receiver locations:

Table 13-3
Operational Noise Level Compliance

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]	Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
		Daytime	Nighttime	Daytime	Nighttime
R1	42.6	60.0	55.0	No	No
R2	45.5	60.0	55.0	No	No
R3	42.9	60.0	55.0	No	No
R4	36.9	60.0	55.0	No	No
R5	46.7	60.0	55.0	No	No

1 See Figure 13-2 for the receiver locations.
2 Proposed Project operational noise levels as shown on Table 9-1 in the Noise Study.
3 City of Moreno Valley Municipal Code, Chapter 11.80 Noise Regulation, Table 11.80.030-2 (Appendix 3.1)
4 Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m.

1. Exterior Noise

The potential off-site noise impacts caused by the increase in vehicular traffic from the operation of the proposed Project on the nearby roadways were calculated for direct and cumulative Project conditions.

Table 13-4, *Exterior Noise Levels (CNEL)* demonstrates that the Project would not result in a significant noise impact from on-site exterior noise sources, including traffic.

Table 13-4
Exterior Noise Levels (CNEL)

Receiver Location	Roadway	Unmitigated Noise Level (dBA CNEL)	Land Use Compatibility[1]
Bldg_1	Cottonwood Ave.	68.6	*Conditionally Acceptable*
Bldg_2, 3 & 4	Cottonwood Ave.	68.2	*Conditionally Acceptable*

1 Based on the General Plan land use compatibility standards for multi-family residential land use in the City General Plan.

Therefore, no exterior noise mitigation is required to satisfy the General Plan compatibility standards for multi-family residential land use.

2. Interior Noise

To ensure that the Project provides an acceptable interior noise environment, the City of Moreno Valley has established a 45dBA CNEL interior noise limit for new construction.

Tables 13-5, *First Floor Interior Traffic Noise Levels* and **13-6, *Second Floor Interior Traffic Noise Levels*** show that all the residential units will require a windows-closed condition and a means of mechanical ventilation (e.g., air conditioning). **Table 13-5** shows that the future noise levels at the first-floor building façade are estimated to range from 67.9 to 68.7 dBA CNEL with interior noise levels ranging from 34.9 to 36.7 dBA CNEL. The first-floor interior noise level analysis shows that the City of Moreno Valley 45 dBA CNEL interior noise standards can be satisfied using standard windows with a minimum STC rating of 27 for all units based on the minimum 25 dBA interior noise reduction for typical construction.

Table 13-6 shows the future noise levels at the second-floor building façade are estimated to range from 67.8 to 68.6 dBA CNEL with interior noise levels ranging from 34.8 to 36.6 dBA CNEL. The second-floor interior noise level analysis shows that the City of Moreno Valley 45 dBA CNEL interior noise standards can be satisfied using standard windows with a minimum STC rating of 27 for all units, based on the minimum 25 dBA interior noise reduction for typical construction.

Table 13-5
First Floor Interior Traffic Noise Levels

Receiver Location	Roadway	Noise Level at Façade[1]	Estimated Interior NR[2]	Estimated Interior NR[3]	Upgraded Windows[4]	Interior Noise Level[5]
Bldg_1	Cottonwood Ave.	68.7	23.7	32.0	No	36.7
Bldg_2, 3 & 4	Cottonwood Ave.	67.9	22.9	33.0	No	34.9

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise limits.
[3] Estimated minimum interior noise reduction.
[4] Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.

Table 13-6
Second Floor Interior Traffic Noise Levels

Receiver Location	Roadway	Noise Level at Façade[1]	Estimated Interior NR[2]	Estimated Interior NR[3]	Upgraded Windows[4]	Interior Noise Level[5]
Bldg_1	Cottonwood Ave.	68.6	23.6	32.0	No	36.6
Bldg_2, 3 & 4	Cottonwood Ave.	67.8	22.8	33.0	No	34.8

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise limits.
[3] Estimated minimum interior noise reduction.
[4] Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.

Long-term noise from occupancy or operation of the proposed Project is found to be less than significant, and no mitigation is required.

b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Introduction

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically

only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves. In terms of measuring vibration, the peak particle velocity (PPV) is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. The Caltrans Transportation and Construction Vibration Guidance Manual, April 2020 provides general thresholds and guidelines as to the vibration damage potential from vibratory impacts. **Table 13-7, *Caltrans Vibration Damage Potential Threshold Criteria*** provides Caltrans general vibration damage potential thresholds.

Table 13-7
Caltrans Vibration Damage Potential Threshold Criteria

Structure and Condition	PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings ruin ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

Project Impacts

To determine the vibratory impacts during construction, reference construction equipment vibration levels were utilized and then extrapolated to the façade of the nearest adjacent structures. The nearest sensitive receptors are the residential structures located adjacent to the western property line. All structures surrounding the Project site are “new residential structures”. No historical or fragile buildings are known to be located within the vicinity of the site.

The construction of the proposed Project is not expected to require the use of substantial vibration inducing equipment or activities, such as pile drivers or blasting. The main sources of vibration impacts during construction of the Project would be the operation of equipment such as bulldozer activity during demolition, loading trucks during grading and excavation, and vibratory rollers during paving.

The construction vibration assessment utilizes the referenced vibration levels and methodology set-forth within the Caltrans Transportation and Construction Induced Vibration Guidance Manual. **Table 13-8, *Typical Construction Vibration Levels***

shows the referenced vibration levels.

Table 13-8
Typical Construction Vibration Levels

Equipment	Peak Particle Velocity (PPV) (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Piledriver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Piledriver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

[1] Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

Table 13-9, ***Construction Vibration Impact Analysis*** shows the Project's construction-related vibration analysis at the nearest structures to the Project construction area. Construction impacts are assessed from the closest area on the Project site to the nearest adjacent structure.

Table 13-9
Construction Vibration Impact Analysis

Receiver[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]					Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Highest Vibration Level		
R1	12'	0.009	0.105	0.229	0.268	0.268	0.3	No
R2	12'	0.009	0.105	0.229	0.268	0.268	0.3	No
R3	116'	0.000	0.004	0.008	0.009	0.009	0.3	No
R4	12'	0.009	0.105	0.229	0.268	0.268	0.3	No
R5	337'	0.000	0.001	0.002	0.002	0.002	0.3	No

[1] Receiver locations are shown on Exhibit 10-A.
[2] Distance from receiver location to Project construction boundary (Project site boundary).
[3] Based on the Vibration Source Levels of Construction Equipment (Table 10-4).
[4] Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19, p. 38.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

Based on the above information, Project-related construction activity will not cause any potential damage to the nearest structures; therefore, there any impact from generation of excessive groundborne vibration or groundborne noise levels is less than significant, and no mitigation is required.

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?				

Response: ***No Impact***

The closest airport is the March Air Reserve Base located approximately 2.4 miles southwest of the Project site, and the Project site is not located within a Compatibility Zone of the March Air Reserve Base. Because the Project site lies outside the Compatibility Zones, no impact would occur related to the safety of people within an airport land use plan and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code Section 9.10.140 Noise and Sound
4. Moreno Valley Municipal Code Chapter 11.80 Noise Regulations March Air Reserve Base (MARB)/March Inland Port (MIP) Airport Land Use Compatibility Plan (ALUCP) on November 13, 2014 (http://www.rcaluc.org/Portals/13/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700)
5. *Noise Impact Analysis,* prepared by Urban Crossroads, Inc., 6-23-2021 (**Appendix G**)

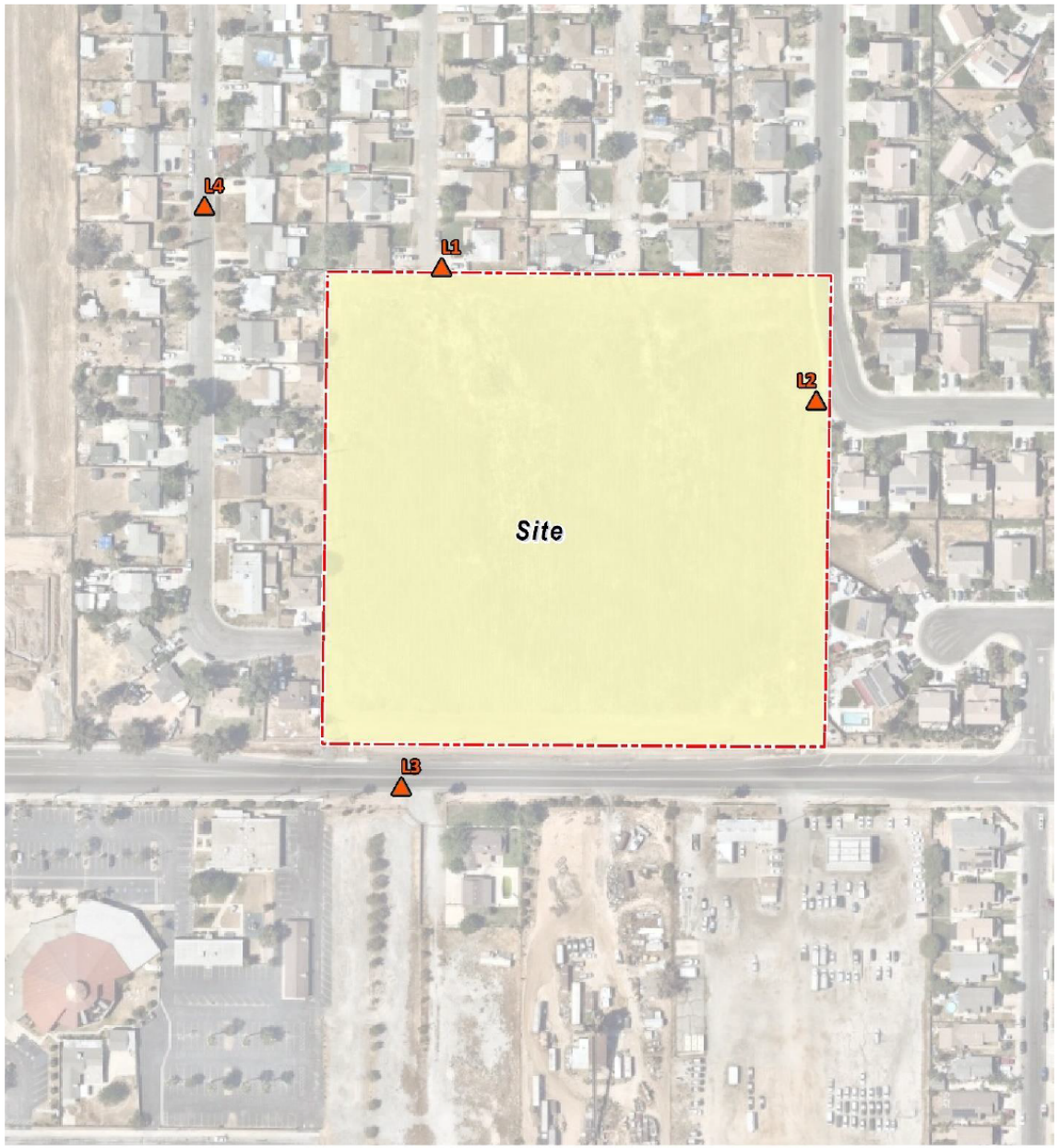
FIGURE 13-1
TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

Source: Noise Study (Appendix G)

FIGURE 13-2
TNOISE MONITORING LOCATIONS



Source: Noise Study (Appendix G)

14. POPULATION AND HOUSING – Would the project:				
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 road or other infrastructure)?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The proposed Cottonwood Village Project would convert vacant land located within the City of Moreno Valley within the City's Residential Maximum 15-25 dwelling units/acre (COMU) land use designation. The project will develop 23 residential 4-plex buildings on the site, with a total of 92 3-bedroom town home units. The Southern California Association of Government (SCAG) 2019 Local Profile for the City of Moreno Valley indicates that the 2018 population was 207,629. The SCAG Connect SoCal Demographics and Growth Forecast (2020) projects an estimated City population of 266,800 by the year 2045. The SCAG 2019 Local Profile for the City of Moreno Valley indicates that the average household size is 3.9 persons. As such, the development of 92 townhouse units is anticipated to house 359 persons. Given that the current population of Moreno Valley is about 50,000 persons less than the projected 2045 population, and about 100,000 persons less than the City of Moreno Valley General Plan build-out population projection of a maximum of 302,785 persons, the potential for an additional 359 residents within the City of Moreno Valley is considered less than significant as the project represents only about 0.38% of the potential growth anticipated between the present population and the City's projected build-out population.

Additionally, the SCAG Connect SoCal Demographics and Growth Forecast (2020) projects that the total number of households within the City by 2040 will be 76,200, while the SCAG 2019 Local Profile for the City indicates that the total number of households within the City is 53,170. As such, the addition of 93 residential units would be well within the projected number of households that would need to be accommodated in the next 20 years. These units would contribute to the housing needs within the City, which, as determined by the SCAG 6th Cycle Regional Housing Needs Assessment (RHNA) Allocation Plan,[6] was determined to be 13,596 units. Given the above, the proposed Project would not induce population growth beyond that which has been planned for in the City General Plan or SCAG planning documents, or that can be accommodated by the Project and the City. Therefore, impacts would be less than significant. No mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Response: ***No Impact***

No occupied residences homes are located on the vacant project site; therefore, implementation of the proposed project will not displace substantial numbers of existing housing or persons, necessitating the construction of replacement housing elsewhere. No impacts will occur; therefore, no mitigation is required.

[6] According to SCAG, "the RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity, fair share housing needs."; The intent of the future needs allocation by income groups is to relieve the undue concentration of very low and low-income households in a single jurisdiction and to help allocate resources in a fair and equitable manner.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Southern California Association of Government, *Profile of the City of Moreno Valley* May 2019. Accessed at: https://scag.ca.gov/sites/main/files/file-attachments/morenovalley_localprofile.pdf?1606013528
5. Southern California Association of Government, *Current Context Demographics and Growth Forecast, Technical report*. Adopted on September 3, 2020 https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579
6. Southern California Association of Government, SCAG 6th Cycle Draft RHNA Allocation Based on RC-Approved Final RHNA Methodology. September 2020 https://scag.ca.gov/sites/main/files/file-attachments/rhna-draft-allocations-090320-updated.pdf?1602188695

15. PUBLIC SERVICES – Would the project:

a) 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:

i)	Fire protection?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The Moreno Valley Fire Department is part of the CAL FIRE / Riverside County Fire Department's regional, integrated, cooperative fire protection organization.

The proposed Project would place new residential uses on undeveloped land. The City of Moreno Valley Fire Department (MVFD) contracts with the Riverside County Fire Department (RCFD) for local fire protection services. The closest station to the Project site, which Fire Station 99 located at 13400 Morrison Street is approximately 1.3 miles easterly of the Project site. Response times from Fire Station 99 to the Project site are estimated to be about 3 minutes based on an average travel speed of 35 miles per hour. According to the City's General Plan, a five-minute response time is considered the time standard for adequately serving urban and suburban uses.

Prior to the issuance of building permits all construction documents will be reviewed and approved by the City of Moreno Valley's Fire Department as contracted through CAL FIRE for consistency with the Uniform Fire Code (Moreno Valley Municipal Code 8.36). Compliance with standard conditions is not considered unique mitigation under CEQA. The development will be required to provide fully operational fire suppression equipment, including hydrants, prior to the arrival of any building material being delivered to the Project site.

Pursuant to the Moreno Valley Municipal Code, new residential development is required to pay development impact fees (DIF) that can go toward purchasing land and construction of new fire facilities. Payment of the DIF is a standard condition

and is not considered unique mitigation under CEQA. Additional residential development in this area will not 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 fire protection. Any impacts are considered less than significant, and no mitigation is required.

ii)	Police protection?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The City of Moreno Valley contracts with the Riverside County Sheriff's Department (RCSD) to provide police service for the City. The RCSD has 162 sworn officers and a current officer to population ratio of 0.9 officers per 1,000 populations in the City. The Moreno Valley Police Department headquarters is located at 22850 Calle San Juan De Los Lagos approximately 3.1 miles southwesterly of the proposed Project site. This is the closest police station to the Project site.

It should be noted the MVPD divides the City into "beat" or service areas to assure the entire City receives adequate police patrol and protection services. The Project could introduce a maximum of 354 new City residents[7] (92 residences x 3.85 people per residence) into the City under the existing zoning. Although it is not known how many of these residents would be new to the City, the Project would increase the need for police services over time.

Although the proposed Project will require additional police services, the Project site is already within a developed area currently served by the RCSD. The Project itself is not expected to adversely affect police services although it will increase the local population and eventually result in increased calls for service similar to other suburban development in the City.

Per Moreno Valley Municipal Code, new residential development is required to pay development impact fees that can go toward purchasing land and construction of new police service facilities. Payment of the DIF is a standard condition and is not considered unique mitigation under CEQA.

Additional residential development into this area will not 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 police protection. Any impacts are considered less than significant, and no mitigation is required.

iii)	Schools?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

[7] Table 14-1, Population Estimates, in Section 14, Population and Housing

The Project proposes the development of residential uses which would generate school- aged children. Based on data from the Moreno Valley Unified School District (MVUSD) website, the Project site and its future residents, would be served by the MVUSD schools shown in **Table 15-1, *Local MVUSD Schools***.

Table 15-1
Local MVUSD Schools

Schools (Grades)	Address	Distance/Direction from Site
Butterfield Elementary School (K-5)	13400 Kitching Street	1.6 miles east
Mountain View Middle School (6-8)	13130 Morrison Street	1.6 miles east
Moreno Valley High School (9-12)	23300 Cottonwood Avenue	1.8 miles west

Source: Google Maps

Based on the District's most current Developer Impact Fee Report (April 29,2020), the Project could generate a maximum of 98 elementary, 52 middle school, and 65 high school students (215 total students), as shown in **Table 15-2, *Estimated Student Generation***.

Table 15-2
Estimated Student Generation

School Level	Grades	Students/Household	Potential Student Generation
Elementary	K-5	0.27761	98
Middle	6-8	0.1449	52
High	9-12	0.1831	65
Total	**K-12**	**0.6041**	**215**

Source: extrapolated and estimated from MVUSD Developer Impact Fee Report, June 16, 2021

According to the MVUSD website, the current Level II Statutory Fee Schedule is $4.66 per square foot, effective as June 16, 2021. The proposed Project would pay $4.66 per square foot in developer impact fees, or whatever the current impact fees are at the time of permit issuance.
According to state law, residential development that pays its appropriate established developer impact fee to the serving school district(s) is considered to have fully mitigated its potential impacts to school facilities and services, and no additional mitigation is required. Therefore, with payment of established school impact fees, the Project would have a less than significant impact relative to schools and no mitigation is required.

iv) Parks?	☐	☐	☒	☐

Response: *Less Than Significant Impact*

The proposed Project includes the construction of 92 new residences which could generate approximately 354 new City residents. Project residents would be expected to use City or regional park facilities and services.

The closest City recreational facility to Project site is the Bayside Park (24399 & 24371 Bay Avenue) near the southeast corner Indian Street and Bay Avenue which is a neighborhood park 0.75 mile westerly of the site with a playground, BBQs, ½ court basketball, and picnic tables with shelters.

However, the closest full City park is Moreno Valley Community Park (13380 Frederick Street) located approximately 2.0 miles westerly of the site. The Ridge Crest Park contains soccer fields, playground, picnic tables, barbeques, snack bar, a tot lot, restrooms, and off-street parking.

In addition, the regional Lake Perris State Recreational Area is 3.5 miles southeasterly of the site and offers a wide range of recreational facilities and programs, including boating, camping, hiking, bicycling, horseback riding, picnic shelters, swimming beaches, fishing, nature walks and tours, windsurfing, restrooms, and showers.

The additional residents of the Project would utilize the onsite community park and open space areas as well as various offsite recreational facilities in the surrounding area. Since the proposed Project is residential it will eventually result in an increase in the use of existing neighborhood parks, regional or state parks, or other recreational facilities. According to the State Quimby Act, a project of this size would be expected to generate a need for 1.06 acres of parkland[8]. The project does not propose any public parks.

In addition, the Project will be required to pay the City's in lieu DIF to offset the impacts to parks and recreational programs as well as provide funds for long-term maintenance of existing park facilities. The DIF will include the difference between the Project's parkland requirement under the Quimby Act and General Plan Policy 4.2.7 (3 acres per thousand population for new residential projects) and the onsite parkland provided by the Project. The DIF is considered regulatory compliance and not unique mitigation under CEQA.

With provision of onsite facilities plus payment of the required DIF, the Project will not 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. Any impacts would be less than significant, and no mitigation is required.

v)	Other public facilities?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The proposed Project could introduce a maximum of 354 residents into the City, although it is not known how many of these would actually be new to the City (i.e., existing residents relocating to new housing). Because the Project could introduce a substantial amount of additional population into the City, the expansion of public

[8] Quimby Act minimum and General Plan Policy 4.2.7 recommends standard of 3 acres per 1000 new residents for parkland. 354 new Project residents / 1000 = 0.354 x 3 acres = 1.06 acres of parkland required for the Project.

services such as libraries or hospitals will not be required. The proposed development will result in an incremental, yet less than significant increase in the demand of such services over time as the Project is occupied.

As the City's population grows, new medical facilities will be required to provide health and medical services for an expanded population. The Project's estimated population growth is within the population projected under the General Plan. Therefore, the Project would not significantly impact City or County health and medical facilities beyond what was anticipated in the General Plan.

Based on this analysis, the Project will result in less than significant impacts to libraries, health services, and other public services as a result of the Project.

Mitigation Measures

No mitigation measures are required.

Sources:

1. City Moreno Valley Website
   http://www.moval.org/index.shtml
   - Fire Department
   - Police Department
2. Google Maps Website
   www.google.com/maps
3. Moreno Valley Municipal Code Website
   http://qcode.us/codes/morenovalley/?view=desktop
4. Moreno Valley unified School District Website
   https://www.mvusd.net/

16. RECREATION – Would the project:				
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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The proposed Project includes the construction of 92 new townhome residences which could generate approximately 354 new City residents based on an average household size of 3.85 persons per household from U.S. Census data. Project residents would be expected to use City or regional park facilities and services. The closest City recreational facilities to the Project site are shown in **Table 16-1, *City Parks***.

Table 16-1
City Parks

Park Name/ Location	Size (acres)	Distance/Direction from Project site	Amenities
Bayside Park 24435 Bay Avenue	2.04	0.7-mile southwest	Basketball Court, Barbecues, Horseshoes, Picnic Tables, Security Lighting, Playground, one small Picnic Shelter
Sunnymead Park 12655 Perris Boulevard	15.53	0.7-mile north-northwest	Barbecues, Off-Street Parking, Picnic Tables, Restrooms, Security Lighting, Snack Bar, Lighted Softball/Baseball Fields (4), Playground, three small Picnic Shelters
Weston Park 13170 Lasselle Street	4.14	0.8-mile northeast	Barbecues, Multi-Use Athletic Fields, Picnic Tables, Restrooms, Security Lighting, Softball Fields, Playground, four small Picnic Shelters

Source: Moreno Valley Parks and Community Services Department website 2021

In addition, the regional Lake Perris State Recreational Area is 4.6 miles southeast of the site and offers a wide range of recreational facilities and programs, including boating, camping, hiking, bicycling, horseback riding, picnic shelters, swimming beaches, fishing, nature walks and tours, windsurfing, restrooms, and showers. The additional residents of the Project would utilize the onsite community park and open space areas as well as various offsite recreational facilities in the surrounding area.

The Project proposes a number of private recreational amenities for its residents, including a tot lot, turf field, a pool/activity area, and a perimeter, 4' wide bicycle and running path.

The proposed Project is residential so it will eventually result in an increase in the use of existing neighborhood parks, regional or state parks, or other recreational facilities. According to the State Quimby Act, a project of this size would be expected to generate a need for 1.06 acres of new public parkland based on an estimated population of 354 residents and 3 acres or new parkland per thousand new residents.

In addition, the Project will be required to pay the City's in lieu Development Impact Fee (DIF) to offset the impacts to parks and recreational programs as well as provide funds for long-term maintenance of existing park facilities. The DIF will include the difference between the Project's parkland requirement under the Quimby Act and 2040 General Plan Parks and Public Services (PPS) Policy 1-1 (3 acres per thousand population for new residential projects) which would be in addition to the private onsite recreational space provided within the Project. The DIF is considered regulatory compliance and not unique mitigation under CEQA.

With provision of private onsite facilities plus payment of the required DIF, the Project will not 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. Any impacts would be less than significant, and no mitigation is required.

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

Response: ***Less Than Significant Impact***

The proposed 92 new residences could generate approximately 354 new City residents based on 3.85 persons per household estimated from U.S. Census data. Based on the City's Quimby Act and General Plan standard of 3 acres per thousand new population, the Project would be required to provide 1.06 acres of new public parkland. The Project proposes a number of private recreational amenities but would be required to pay applicable Development Impact Fees (DIF) to offset the Project's increased public parkland needs. The DIF is used to acquire and develop new parkland in the City as well as upgrade and refurbish existing parks and recreational programs. The DIF is considered regulatory compliance and not unique mitigation under CEQA.

The Project could indirectly result in the need for construction or expansion of recreational facilities as the population of the Project increased. However, the combination of onsite private facilities and the payment of in lieu fees will help reduce potential impacts to less than significant levels. Therefore, the Project will not require the construction or expansion of recreational facilities which would have an adverse physical effect on the environment.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
2. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
3. Project Plans (**Appendix I**)
4. City of Moreno Valley, Parks and Community Services, website accessed June 2021 https://moval.maps.arcgis.com/apps/Shortlist/index.html?appid=da913fd72d024db09f9c37423371572b

17. TRANSPORTATION – Would the project:

a)	Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Introduction

The CEQA thresholds of significance for transportation and traffic impacts have shifted in recent years. In the past the analysis focused on the Level of Service (LOS) which measured congestion at local intersections and roadway segments. The emphasis of these past studies was to assure the street grid network functioned well and allowed for efficient movement of vehicles. The current focus is to encourage active transportation (e.g., pedestrians, bicyclists, etc.) and transit, and to limit increases in Vehicle Miles Travelled (VMT). An important part of this analysis is to determine if a proposed action is consistent with both the vehicular and non-vehicular aspects of the Circulation Element of the General Plan.

Vehicular Plan Consistency

Policy C.3-1 of the General Plan 2040 Circulation Element sets an LOS standard for City streets as shown below:

> ***Policy C.3-1:*** *Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Strive to maintain LOS "D" at intersections during peak hours.*

A Trip Generation Assessment (*TGA*) of the Project was prepared which indicated a more detailed Traffic Impact Assessment (TIA) was not needed. Based on City of Moreno Valley requirements, a multi-family project of less than 150 units does not require a traffic study that evaluates peak hour intersection operations because of its limited trip generation (i.e., less than 100 peak hour trips). Table 2 of the *TGA* indicates the Project, with 92 townhouse units, would generate 43 AM peak hour trips and 51 PM peak hour trips (total 674 trips). Therefore, no traffic-related roadway or intersection deficiencies are anticipated, and no traffic operations analysis is required.

In addition, payment of the City's Developer Impact Fees (DIF) and payment of regional County Traffic Uniform Mitigation Fee (TUMF) will help offset any indirect Project-related traffic impacts. With payment of these fees, the Project will have less than significant impacts related to vehicular plan consistency.

Non-Vehicular Plan Consistency

Goal C-5 and several of its policies in the General Plan Circulation Element encourage non-vehicular transportation systems as shown below:

> ***Goal C-5:*** *Enhance the range of transportation operations in Moreno Valley and reduce vehicle miles travelled.*
>
> *Policies*
>
> ***C.5-1:*** *Work to reduce VMT through land use planning, enhanced transit access, localized attractions, and access to non-automotive modes.*
> ***C.5-2:*** *Encourage public transportation that addresses the particular needs of transit-dependent individuals, including senior citizens, the disabled, and low - income residents.*
> ***C.5-3:*** *Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.*
> ***C.5-4:*** *Particularly in corridors and centers, work with transit service providers to provide first-rate amenities to support pedestrian, bicycle and transit usage, such as bus shelters and benches, bike racks on buses, high-visibility crossings, and modern bike storage.*
> ***C.5-5:*** *Encourage local employers to implement TDM strategies, including shared ride programs, parking cash out, transit benefits, allowing telecommuting and alternative work schedules.*

Emphasizing non-vehicular transportation are also key elements of SB 375 and SCAG's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). The following discusses various aspects of non-vehicular transportation

including pedestrians (sidewalks, trails), bicycles (on-road lanes or off-road paths), bus transit, and train transit.

Sidewalks/Trails. Cottonwood Avenue currently has a continuous sidewalk on the south side of the street in the Project area and on the north side of the street from the southeast corner of the Project site east toward Kitching Street. There is no sidewalk adjacent to the Project site which is vacant land at present. There is also no sidewalk on the north side of Cottonwood west to Perris Boulevard (some of this land is part of an older residential development and the rest is next to vacant land). The Project will install sidewalks along its Cottonwood Avenue frontage to connect to the existing sidewalks to the east although there will still be a discontinuous section from the southwest corner of the Project site west to Perris Boulevard (approximately 620 feet). The site is in a fully urbanized area and there are no trails present in the immediate area.

Bicycles. There are Class II bicycle lanes on Cottonwood Avenue west of Perris Boulevard and just east of the Project site, and Map C-2 in the City's Circulation Element shows a future Class III bike lane adjacent and west of the Project site connecting the existing lanes on Cottonwood Avenue. The Project will make bicycle lane improvements adjacent to its site as required.

Bus Transit. Bus service to the Project area is provided by the Riverside Transit Agency (RTA). The closest bus line to the project site is Route 18 along Cottonwood Avenue and Perris Boulevard approximately 620 feet or 0.12-mile west of the Project site at its closest point. Route 18 has stops close to the Cottonwood/Perris intersection and connects to the central and western portions of Moreno Valley as well as transfer points to other bus routes serving western Riverside County. Eventually as the eastern more rural portion of the City grows and supports more residences and businesses, RTA will modify its bus routes and service availability to accommodate this growth. The proposed Project would not impede the implementation of any City programs supporting walking, bicycling, and use of buses, and the proposed Project will not conflict with any adopted transportation policies. Therefore, less than significant impacts relative to bus transit service would occur and no mitigation is required.

Train Transit. There is no commuter rail service in the area surrounding the Project site. The closest Metrolink commuter rail transit station is at 14160 Meridian Parkway in Riverside approximately five (driving) miles west-southwest of the Project site on the west side of the I-215 Freeway. This Moreno Valley/March Field Station provides connections to urban areas to the south (Perris) and north (Riverside, San Bernardino).

With installation of the planned Project adjacent roadway and sidewalk improvements and implementation of the City's future plans for sidewalks, bicycle routes, trails, the Project will have less than significant impacts related to non-vehicular plan consistency.

Based on this analysis, the Project is consistent with the Circulation Element will have less than significant impacts in this regard and no mitigation is required.

b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Introduction

Level of Service (LOS) has long been the standard of determining significant traffic impacts under CEQA, which in turn influence air pollutant emissions. In 2013 the state legislature passed SB 743 which requires agencies to focus on reducing VMT rather than LOS as a determination of significance under CEQA. Per the 2020 CEQA Statute and Guidelines, VMT is "the most appropriate measure of transportation impacts." In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identifies VMT as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Goal C-5 of the City's General Plan 2040 states…"Enhance the range of transportation operations in Moreno Valley and reduce vehicle miles travelled." The City of Moreno Valley has adopted criteria for evaluating VMT impacts under CEQA including the preferred analysis methodology and thresholds of significance. The criteria are included in the City of Moreno Valley Transportation Engineering Division "Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment" (June 2020).

For purposes of this analysis, the VMT methodology and significance criteria are based on the City of Moreno Valley's guidelines and the requirements described in Section 21099 of the Public Resources Code and the California Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR Advisory). The City of Moreno Valley requires projects to have the same or less VMT per capita when compared to the City overall average VMT at project opening year.

Project Impacts

The City Guidelines provides details on appropriate screening criteria that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed analysis. Screening thresholds are broken into the following three steps:

- Step 1: Transit Priority Area (TPA) Screening
- Step 2: Low VMT Area Screening
- Step 3: Project Type Screening

A land use project needs to meet only one of the three screening thresholds to result in a less than significant VMT impact. The following Vehicle Miles Traveled Assessment (*VMT*) was prepared for the proposed Project.

Step 1: TPA Screening

Consistent with guidance identified in the Technical Advisory, City Guidelines note that projects located within a Transit Priority Area (TPA) (i.e., within a half-mile of an existing "major transit stop"[9] or an existing stop along a "high-quality transit corridor"[10]) may be presumed to have a less than significant impact absent

[9] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.")

[10] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

substantial evidence to the contrary. Based on the Screening Tool, the Project site is not located within a half-mile of an existing major transit stop or along a high-quality transit corridor. Therefore, the TPA Screening criteria is not met.

Step 2: Low VMT Area Screening

The City Guidelines also state that "residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area."[11]

The City uses the WRCOG screening tool to determine low areas of VMT. The screening tool uses the sub-regional Riverside Transportation Analysis Model (RIVTAM) to measure VMT performance within individual traffic analysis zones (TAZs) within the region. The Project's physical location based on parcel number is input into the Screening Tool to determine project generated VMT as compared to the City's impact threshold. The parcel containing the proposed Project was selected and measure of VMT used is VMT per capita based on the Project's residential land use. The Project resides within TAZ 3,806 and based on the screening tool was found to generate 8.43 VMT per capita, whereas the City's impact threshold (i.e., City of Moreno Valley VMT per capita) is 12.79 VMT per capita. As a secondary check, the underlying land use assumptions contained within TAZ 3,806 were also reviewed to ensure that the Project's land use is consistent with that modeled within its respective TAZ. TAZ 3,806 was found to include significant levels of population and households, which is consistent with the Project's intended residential land use. Therefore, **the Low VMT Area Screening criteria is met.**

Step 3: Project Type Screening

The City Guidelines identify that local serving retail with buildings less than 50,000 square feet or other local serving essential services (e.g., day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, small projects anticipated to generate low traffic volumes (i.e., fewer than 400 daily trips) and by association low greenhouse gas (GHG) emissions are also assumed to cause a less than significant impact. Trips generated by the Project's proposed land use have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017. The Project is anticipated to generate 674 vehicle trip-ends per day which is above the 400 daily trip threshold. Therefore, the Project Type Screening criteria is not met.

[11] City Guidelines; page 23.

Conclusion

The proposed Project meets the Low VMT Area Screening threshold and, therefore, would result in a less than significant VMT impact - no additional VMT analysis or mitigation is required.

c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The Project is located on the north side of Cottonwood Avenue approximately 620 feet east of Perris Boulevard in the western urbanized portion of the City. Cottonwood Avenue is classified as a Minor Arterial (89' ROW) in the City's General Plan Circulation Element (Map C-1, Circulation Plan). Regional access to the Project area is also available via the SR-60 Freeway a mile north of the site with on- and off-ramps at Perris Boulevard. There are no existing roadway geometry constraints in the Project area. The Project site is in an urban area so no conflicts with incompatible uses are anticipated.

Roadways must provide adequate sight distance and traffic control, and these provisions are normally achieved through standard roadway design to facilitate vehicular traffic flow. Roadway improvements within and adjacent to the Project site would be designed and constructed to satisfy all City requirements for street widths, corner radii, intersection controls, etc. Adherence to applicable City and Specific Plan requirements would ensure the proposed development would not include any sharp curves or dangerous intersections. Therefore, no substantial increase in hazards due to a design feature would occur, resulting in less than significant impacts and no mitigation is required.

d)	Result in inadequate emergency access?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

As outlined in Threshold 17.c, the Project is located on the north side of Cottonwood Avenue approximately 620 feet east of Perris Boulevard in the western urbanized portion of the City. Cottonwood Avenue is classified as a Minor Arterial (89' ROW). Regional access to the Project area is also available via the SR-60 Freeway a mile north of the site with on- and off-ramps at Perris Boulevard.

The City of Moreno Valley Fire Department (MVFD) contracts with the Riverside County Fire Department (RCFD) for local fire protection services. The closest station to the Project site is Fire Station 99 located at 13400 Morrison Street which is 1.4-miles on-road to the closest portion of the site (southeast corner). Response time from this station to the Project site is estimated to be under three (3) minutes based on an average on-road travel speed of 35 miles per hour. In the past the City has considered a five-minute response time to adequately serve its urban and suburban uses.

The City contracts with the Riverside County Sheriff's Department (RCSD) to provide police service for the City. The RCSD has 162 sworn officers and a current officer to population ratio of 0.9 officers per 1,000 populations in the City. The Moreno Valley Police Department headquarters is located at 22850 Calle San Juan De Los Lagos approximately three miles southwest of the proposed Project site (at City Hall). The closest police station to the Project site is located at 23819 Sunnymead Boulevard approximately 2.4 on-road miles northwest of the Project site. The response time from

the Sunnymead station to the Project site would be approximately four minutes assuming an average on-road travel speed of 35 miles per hour.

Traffic associated with Project construction may have a temporary effect on existing traffic circulation patterns, including emergency access. Although the site is in the eastern (more rural) portion of the City, it is in a generally suburban setting and direct access to the site will be available via Cottonwood Avenue from the south. The proposed Project will also comply with all of the City's requirements for emergency access and sight distances. Therefore, the Project area would have adequate circulation to accommodate emergency services. Due to the proximity of emergency services, the urban setting, and ready access to the site, impacts to emergency access will be less than significant and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Chapter 3.18 Special Gas Tax Street Improvement Fund
5. Moreno Valley Master Bike Plan, adopted January 2015
6. Riverside County Transportation Commission, Congestion Management Program, December 14, 2011
7. Office of Planning and Research. Technical Advisory on Evaluating Transportation Impacts in CEQA. State of California. December 2018
8. City of Moreno Valley. Traffic Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment. City of Moreno Valley: City of Moreno Valley, June 2020
9. Institute of Transportation Engineers. Trip Generation Manual. 10th Edition. 2017
10. *Trip Generation Assessment,* prepared by Urban Crossroads, Inc., 7-27-2020 (*TGA* **Appendix H1**)
11. *Vehicle Miles Traveled (VMT) Screening Evaluation,* prepared by Urban Crossroads, Inc., 5-27-2021 (*VMT* **Appendix H2**)

18. TRIBAL CULTURAL RESOURCES – Would the project:					
a)	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i)	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	☐	☒	☐	☐

Response: *Less Than Significant with Mitigation Incorporated*

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change to a defined Tribal Cultural Resource (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 a 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 PRC, relating to Native Americans.

Based on input from the Native American Heritage Commission, fifteen (15) Tribal Groups and twenty-two (22) Tribal Representatives were contacted by CRM TECH on May 28, 2021, regarding preparation of the Cultural Resources Survey (CRS) for the Project site. A list of the Tribes/Tribal Representatives is provided in **Table 18-1, *Local Native American Tribal Groups***.

Based on the City's prior experience with, and written requests from potentially interested Tribes, AB 52 Notices were sent to 7 Tribes/ 8Tribal Representatives on June 6, 2021; see **Table 18-1**, footnote one (1). No responses were received from the San Manuel Band of Mission Indians or the Torres-Martinez Desert Cahuilla Indians. Written responses were received from the following 4 Tribes:

1. Agua Caliente Band of Cahuilla Indians
   a. No consultation requested – asked to review documents and mitigation measures

2. Pechanga Band of Luiseno Indians
   a. Consultation requested

3. Rincon Band of Luiseno Indians
   a. Consultation requested

4. Soboba Band of Luiseno Indians
   a. Consultation requested

Table 18-1
Local Native American Tribal Groups

Tribe	Group	Representative/Consultation
Cahuilla	Agua Caliente Band of Cahuilla Indians	Jeff Grubbe, Chairperson
	Agua Caliente Band of Cahuilla Indians[1]	Patricia Garcia-Plotkin, Director
	Augustine Band of Cahuilla Mission Indians	Amanda Vance, Chairperson
	Cabazon Band of Mission Indians	Doug Welmas, Chairperson
	Cahuilla Band of Indians	Daniel Salgado, Chairperson
	Los Coyotes Band of Cahuilla and Cupeño Indians	Ray Chapparosa, Chairperson
	Ramona Band of Cahuilla	John Gomez, Environmental Coordinator
		Joseph Hamilton, Chairperson
	Santa Rosa Band of Cahuilla Indians	Lovina Redner, Tribal Chair
	Torres-Martinez Desert Cahuilla Indians [1]	Michael Mirelez, Cultural Resource Coordinator
Cahuilla Serrano	Morongo Band of Mission Indians[1]	Robert Martin, Chairperson
	Morongo Band of Mission Indians	Ann Brierty, THPO
Serrano	San Manuel Band of Mission Indians[1]	Jessica Mauck, Director of Cultural Resources
Cupeno Luiseno	Pala Band of Mission Indians	Shasta Gaughen, Tribal Historic Preservation Officer
Luiseno	Pechanga Band of Luiseno Indians[1]	Mark Macarro, Chairperson
	Pechanga Band of Luiseno Indians	Paul Macarro, Cultural Resources
	Rincon Band of Luiseno Indians[1]	Bo Mazzetti, Chairperson
		Cheryl Madrigal, Tribal Historic Preservation Officer
Cahuilla Luiseno	Soboba Band of Luiseno Indians[1]	Joseph Ontiveros, Cultural Resource Department
		Isaiah Vivanco, Chairperson
Quechan	Quechan Tribe of the Fort Yuma Reservation	Manfred Scott, Acting Chairman
	Quechan Tribe of the Fort Yuma Reservation	Jill McCormick, Historic Preservation Officer

[1] Sent a requested interest in consultation letter under AB 52

Formal consultation was requested by Soboba, Pechanga, and Rincon. The City has not formally concluded consultation yet with the Tribes as they may not provide a conclusion letter until they have had the opportunity to review and comment on this Initial Study.

With the implementation of **Mitigation Measures MM-CUL-1** through **MM-CUL-8** as outlined in Section 5. Cultural Resources, the proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as 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).

With implementation of **Mitigation Measures MM-CUL-1** through **MM-CUL-8,** potential impacts to tribal cultural resources will be reduced to less than significant levels.

ii)	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 Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Response: ***Less Than Significant with Mitigation Incorporated***

Please reference the discussion in Threshold 18.a.i.

With the implementation of **Mitigation Measures MM-CUL-1** through **MM-CUL-8** as outlined in Section 5. Cultural Resources, and shown below, the proposed Project would not 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 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. With implementation of **Mitigation Measures MM-CUL-1** through **MM-CUL-8,** potential impacts to tribal cultural resources will be reduced to less than significant levels.

Mitigation Measures

MM-CUL-1 Archaeological Monitoring. Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all ground disturbing 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) including Consulting Tribe(s), the contractor, and the City, shall develop a CRMP as defined in **MM-CUL-3**. The Project archaeologist 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 to those in attendance. The archaeological monitor 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.

MM-CUL-2 Native American Monitoring. Prior to the issuance of a grading permit, the Developer shall secure agreements with the Consulting Tribe(s) for tribal monitoring. The City is also required to provide a minimum of 30 days' advance notice to the tribes of all ground disturbing 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. The Native American Monitor(s) shall attend the pre-grading meeting with the Project Archaeologist, City, the construction manager and any contractors and will conduct the Tribal

Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance.

MM-CUL-3 Cultural Resource Monitoring Plan (CRMP). The Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a CRMP in consultation pursuant to the definition in 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 AB52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

d. Project description and location .
e. Project grading and development scheduling.
f. Roles and responsibilities of individuals on the Project.
d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details.
e. 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.
f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.
g. Contact information of relevant individuals for the Project.

MM-CUL-4 Cultural Resource Disposition. In the event that Native American cultural resources are discovered during the course of ground disturbing activities (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 **MM-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 **MM-CUL-3**. The location for the future reburial area shall be identified on a confidential exhibit on file with the City and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.

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."

MM-CUL-5 Inadvertent Finds. If potential historic or cultural resources are uncovered during excavation or construction activities at the project site that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, all ground disturbing activities in the affected area within 100 feet of the uncovered resource 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. Further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional archaeologist and Tribal Monitors, if needed. 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 **MM-CUL-2** before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Project Archaeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

MM-CUL-6 Human Remains. 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).

MM-CUL-7 Non-Disclosure of Reburial Locations. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

MM-CUL-8 Archaeology Report - Phase III and IV. Prior to final inspection, the developer/permit holder shall prompt the Project Archaeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to

the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Moreno Valley Municipal Code Title 7 – Cultural Preservation
5. *Cultural Resources Survey Report,* prepared by CRM TECH, 9-23-2021 (**Appendix C**)

19. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Response: *Less Than Significant Impact*

Water

Less Than Significant Impact – Water will be provided by the Eastern Municipal Water District (EMWD). Water service is available through a connection located adjacent to the project site. The project would be supplied with water by EMWD, which uses imported water from the MWD, local groundwater, and recycled water to meet customer demand. Using imported surface water helps prevent overdraft of local groundwater basins. As previously stated under Section 10, Hydrology and Water Quality, the EMWD's Urban Water Management Plan (2015) identifies sufficient water resources to meet demand in its service area. The anticipated available water supply within EMWD's retail service area is anticipated to be greater than the demand for water in the future, which indicates that Western has available capacity to serve the proposed project without requiring the construction of new water facilities beyond those that would be developed within the project site to serve future residences of the proposed project. Therefore, development of the Cottonwood Village Project would not result in a significant environmental effect related to the relocation or construction of new or expanded water facilities. Impacts are less than significant.

Wastewater

Less Than Significant Impact – Wastewater collection will be provided by EMWD and the project will connect to the sewer main adjacent to the project site. Municipal wastewater is delivered to the one of EMWD's five regional water reclamation facilities which treat 46 million gallons of wastewater per day, and currently treats approximately 43 million gallons per day of wastewater at its four active regional water reclamation facilities. The District is responsible for the collection, transmission, treatment, and disposal of wastewater within its service area, which includes the City of Moreno Valley, California. As such, the project would connect to EMWD's existing wastewater collection system within the adjacent roadway and would install an internal wastewater collection system to treat sewage generated by residents of the Cottonwood Village Project, the development of which is not anticipated to cause a significant impact. Therefore, development of the Cottonwood Village Project would not result in a

significant environmental effect related to the relocation or construction of new or expanded wastewater facilities. Impacts are less than significant.

Stormwater

Less Than Significant Impact – The surface runoff from the site, nonpoint source storm water runoff, will be managed in accordance with the WQMP as discussed in the Hydrology and Water Quality Section (Subchapter 10) of this Initial Study. The onsite drainage system will capture the incremental increase in runoff from the project site associated with project development. To mitigate the increase of flow coming from the project, multiple biofiltration trenches with the capacity to store up to the volume required to match and reduce the maximum CFS exiting the site. Project offsite flows will be routed through the project site and into Sunnymead Line P in Cottonwood Avenue. Surface runoff will be discharged in conformance with Riverside County and City of Moreno Valley requirements and as described in the *WQMP* to this Initial Study. Therefore, surface water will be adequately managed on site and as such, development of Cottonwood Village Project would not result in a significant environmental effect related to the relocation or construction of new or expanded stormwater facilities. Impacts are less than significant.

Electric Power

Less Than Significant Impact – Southern California Edison (SCE) will provide electricity to the site and the power distribution system located adjacent to the site will be able to supply sufficient electricity. The effort to connect to the existing electrical system, and to install electricity connections within the project site to serve future residents of the Cottonwood Village Project with electricity is not anticipated to result in significant impacts, as evidenced by the discussions in preceding sections. Therefore, development of the Cottonwood Village Project would not result in a significant environmental effect related to the relocation or construction of new or expanded electric power facilities. Impacts are less than significant.

Natural Gas

Less Than Significant Impact – Natural gas will be supplied by Southern California Gas. The site will connect to the existing natural gas line adjacent to the project site. The effort to connect to the existing gas line within the adjacent roadway, and to install natural gas lines within the project site to serve future residents of the Cottonwood Village Project with natural gas is not anticipated to result in significant impacts, as evidenced by the discussions in preceding sections. Therefore, development of the Cottonwood Village Project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. Impacts are less than significant.

Telecommunications

Less Than Significant Impact – Development of the Cottonwood Village Project would require a connection to telecommunication services, such as wireless internet service and phone service. This can be accomplished through connection to existing services that are available to the developer at the project site. Therefore, development of the Cottonwood Village Project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunications facilities. Impacts are less than significant.

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

Response: ***Less Than Significant Impact***

Please refer to the discussion under issue 10(b), Hydrology and Water Quality. The Cottonwood Village Project is a residential project that will consist of 92, 3-bedroom townhouses, and is anticipated to demand about 51.87 acre foot per year of water from EMWD. The anticipated available water supply within EMWD's retail service area is anticipated to be greater than the demand for water in the future, which indicates that EMWD has available capacity to serve the proposed project. As such, given that EMWD's 2020 Urban Water Management Plan indicates that the water district anticipates ample water supply will be available to serve the project's daily/annual demand. Therefore, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Impacts under this issue are considered less than significant.

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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

Municipal wastewater is delivered to the one of EMWD's five regional water reclamation facilities which have the capacities to treat 46 million gallons of wastewater per day. The District currently treats approximately 43 million gallons per day of wastewater at its four active regional water reclamation facilities through 1,813 miles of sewer pipelines. The District is responsible for the collection, transmission, treatment, and disposal of wastewater within its service area, which includes the City of Moreno Valley, California. Given the available capacities at District wastewater treatment plants, it is anticipated that the District has available capacity to accommodate the anticipated wastewater generated from the new residences developed on the site. It is estimated that a 92, 3-bedroom townhouse project would house approximately 359 persons, as discussed under Subchapter 14, Population and Housing, and as such would generate 100 gallons of wastewater per person per day, according to the City of Moreno Valley General Plan EIR. The project, therefore, would generate about 35,900 gallons of wastewater per day (GPD) or 0.0359 MGD. The generation of 0.0359 MGD of wastewater is well within the available capacities at EMWD's wastewater treatment facilities. As such, it is anticipated that there will be available capacity to accommodate the demand generated by the proposed project. Impacts under this issue are less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☒	☐	☐

Response: ***Less Than Significant Impact With Mitigation Incorporated***

The proposed project will generate demand for solid waste service system capacity and has a potential to contribute to potentially significant cumulative demand impacts on the solid waste system. The Riverside County Waste Management Department (RCWMD) is responsible for the efficient and effective landfill disposal of non-hazardous county

waste. To accomplish this, the RCWMD operates six active landfills Solid waste collection is a “demand-responsive” service and current service levels can be expanded and funded through user fees. Once occupied, the project would be served by Waste Management of Inland Empire, which is a City of Moreno Valley solid waste franchise hauler.

The project will generate construction waste from removal of vegetation and otherwise throughout the construction process. The inert wastes can be disposed of at existing municipal solid waste facilities, which have adequate capacity to accept inert wastes generated by this project or can be recycled onsite. Any construction and demolition (C & D) waste will be recycled to the maximum extent feasible, and any residual materials will be delivered to one of several C & D disposal sites in the area surrounding the project site. Many of these C & D materials can be reused or recycled, thus prolonging our supply of natural resources and potentially saving money in the process.

In accordance with CALGreen Code 5.408.4, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing must be reused or recycled. As this is a mandatory requirement, no mitigation is required to ensure compliance with the CALGreen Code by the Applicant for this project. Because of increased construction recycling efforts resulting from CALGreen and other regulations, opportunities for construction recycling are becoming easier to find, such as one in Moreno Valley that accepts a wide range of construction and demolition debris materials: asphalt, concrete, cardboard, dirt, drywall, metal, gravel, pallets, rock, soil, and wood. There are additional facilities that accept C & D materials located in the surrounding areas. To further reduce potential impacts to solid waste facilities during construction of the project due to the scale of the materials that may require disposal or recycling, **Mitigation Measure MM-UTIL-1** shall be implemented.

The proposed project will also generate solid waste during operation as residents of the future townhouses will generate waste. Solid waste generation rates included in the 2006 City of Moreno Valley General Plan EIR, which have not been updated in the 2021 General Plan EIR, state that multi-family uses such as that which this project proposes can produce 7 pounds of refuse per dwelling unit per day. It is estimated that 92 multi-family units would generate about 644 pounds per day or 117.53 tons per year (7 x 92 x 365 = 235,060 pounds per year / 2,000 = 117.53 tons per year). Descriptions of the primary disposal facilities and their capacity are summarized below.

El Sobrante Sanitary Landfill is located at 10910 Dawson Canyon Road east of Interstate 15 in the Gavilan Hills. According to the State of California’s Solid Waste Information System, the landfill is active and permitted with a projected closure date of January 1, 2051. The site is currently permitted to a capacity of 209,910,000 cubic yards with a remaining capacity of 143,977,170 cubic yards and permitted throughput of 16,054 tons per day.

The Badlands disposal site is located at 31125 Ironwood Ave, Moreno Valley 92373. According to the State of California’s Solid Waste Information System, the landfill is active and permitted with a projected closure date of January 1, 2022. The site is currently permitted to a capacity of 34,400,000 cubic yards with a remaining capacity of 15,748,799 cubic yards and permitted throughput of 4,800 tons per day.

Lamb Canyon disposal site is located on Lamb Canyon Road three miles south of Beaumont, CA. According to the State of California’s Solid Waste Information System, the landfill is active and permitted with a projected closure date of April 1, 2029. The

site is currently permitted to a capacity of 38,935,653 cubic yards with a remaining capacity of 19,242,950 cubic yards and permitted throughput of 5,000 tons per day.

The above facilities have a combined daily capacity of 25,854 tons per day. Solid waste capacity has been expanded to provide adequate disposal capacity for cumulative demand over at least the next five years. Combined with the City's mandatory source reduction and recycling program, the proposed project is not forecast to cause a significant adverse impact to the waste disposal system due to the available capacities at nearby landfills. Therefore, with the implementation of **Mitigation Measure MM-UTIL-1**, required to ensure construction waste is disposed at the appropriate facilities, the proposed project would have a less than significant potential to generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

All land uses within the City of Moreno Valley that generate waste are required to coordinate with Waste Management, Inc., the City's contracted waste hauler, to collect solid waste on a common schedule as established in applicable local, regional, and state programs.

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan, that identifies how each jurisdiction will meet the mandatory state diversion goal of 50% by and after the year 2000. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." As state above, the total solid waste generated per year would equal about 117.53 tons, or after an assumed 50% diversion to be recycled per the state's solid waste diversion requirements under AB 939, the Project solid waste generation will be about 58.5 tons per year. The City is served by several surrounding landfills: Badlands Landfill, El Sobrante Landfill, and Lamb Canyon Landfill, which have adequate capacity to serve the project (further described above under issue 19d).

Additionally, all development within the City is required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991), Title 8.80 – Recycling and Diversion of Construction and Demolition Waste of the City Municipal Code, and other local, state, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the waste disposal facilities is reduced in accordance with existing regulations

Any hazardous materials collected on the project site during either construction or operation of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider, as stated under issue 9, Hazards and Hazardous Materials above. Should the proposed project need to remove any excess soils, the soil removal will be accomplished using trucks during normal working hours, with a maximum of 50 round trips per day. Furthermore, any hazardous materials collected on the project site during either construction of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider.

Therefore, given the above findings, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. Any impacts under this issue are considered less than significant.

Mitigation Measures

MM-UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the Applicant for review and approval prior to the start of demolition/construction activities to accomplish this objective.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Final Environmental Impact Report City of Moreno Valley General Plan, certified July 11, 2006
4. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
5. Moreno Valley Ordinance 827, Stormwater/Urban Runoff Management and Discharge Controls
6. Moreno Valley Ordinance 827 addressing National Pollutant Discharge Elimination System (*NPDES*).
7. Moreno Valley Municipal Code Chapter 8.80 – Recycling and Diversion of Construction and Demolition Waste
8. Riverside County Construction/Demolition Debris Recyclers https://www.rcwaste.org/Portals/0/Files/WasteGuide/CD-DebrisRecyclers.pdf
9. CalRecycle, Solid Waste Information System (SWIS) Facility/Site Activity Details:
10. Badlands Sanitary Landfill https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2245?siteID=2367
11. El Sobrante Landfill https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2256?siteID=2402
12. Lamb Canyon Landfill https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2246?siteID=2368
13. *Project Specific Water Quality Management Plan,* prepared by Blue Engineering and Consulting, 1-12-2022 (**Appendix F2**)

20. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Response: *Less Than Significant Impact*

The proposed Project is not located within a Very High Fire Hazard Severity Zone in a Local Responsibility Area (LRA) or State Responsibility Area (SRA), shown on **Figure 9-3**, in the Hazards and Hazardous Materials Section of this IS. Please review the discussion under Subchapter 9, Issue (g), Hazards and Hazardous Materials. The Project is located in an area surrounded by residential uses, with the exception of commercial uses to the south. The proposed project site is currently vacant and with minimal vegetation cover, though some vegetation grows as a result of uncontrolled runoff from nearby roadways to the north. The site does not contain a heavy fuel load at present because vegetation has been managed through periodically blading the site.

The City of Moreno Valley reviews all proposed projects and provides conditions of approval for setbacks; building and fire sprinkler requirements; roofing design and material and construction requirements, fuel modification; and other measures as appropriate to reduce the risk to the development and surrounding uses to fire hazards. Furthermore, given the urban setting within which the Project is located and availability of local roadways to access the site, it is not anticipated that the development of the Cottonwood Village Project within the project site would substantially impair an adopted emergency response or evacuation plan. Furthermore, the project would improve surrounding roadways to provide access to the project site, which would enhance emergency access in the project area.

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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The proposed Project is characterized by essentially flat topography that has been disturbed by past grading activities. The site is characterized by non-native grasses and other weedy species that are managed through periodic blading. The potential for significant exposure of site occupants to pollutant concentrations from a wildfire would be minimal. The project site itself is not anticipated to be exposed to wildfire, particularly once developed because the site will be cleared, which will minimize fire risk. Based on the site location, and the condition of the site and surrounding area, the project will have a less than significant potential to exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. No mitigation is required.

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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The Project will require associated infrastructure in support of the Cottonwood Village Project operations/occupancy as follows: the project will require a potable water connection to the Eastern Municipal Water District's service area; the project will require a wastewater connection to the sewer main on Cottonwood Avenue; electricity provided by Southern California Edison will require the power lines in front of the property along Cottonwood Avenue to be installed underground; the site will connect to the existing natural gas line in Cottonwood Avenue. This portion of Moreno Valley is highly urbanized, and the project site is surrounded by residential development with minimal commercial development to the south of the site along Cottonwood Avenue. Therefore, given that the proposed project is not located within a very high fire hazard severity zone, the Project would not have a significant potential to exacerbate wildfire risk or to result in temporary or ongoing impacts to the environment. Impacts under this issue are considered less than significant.

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?	☐	☐	☒	☐

Response: ***Less Than Significant Impact***

The discussion under Subchapter 7, Geology and Soils, concluded that the Project would not have a significant potential to experience landslides or slope instability. Once constructed, the project site will remain essentially flat, and the drainage will be managed onsite in an efficient manner that would not expose people or structures to significant risk. Furthermore, as discussed under Subchapter 10, Hydrology and Water Quality, the Project is not located in an area containing a flood hazard, and the project site is anticipated to remain stable should a wildfire occur at or near the project site. As discussed above, the Project is not anticipated to be exposed to substantial fire risk because of the lack of fuel to spread wildfire surrounding the site. Therefore, the development of the Cottonwood Village Project at this site is anticipated to have a less than significant potential to expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Sources:

1. Moreno Valley General Plan, May 20, 2021
2. Final Environmental Impact Report City of Moreno Valley General Plan, May 20, 2021 http://www.moval.org/cdd/documents/general-plan-documents-draft-general-plan.html
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017
   http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   Chapter 5 – Wildland and Urban Fires
   Figure 5-2 – Moreno Valley High Fire Area Map 2016
   Chapter 8 – Landslide
   Figure 8-1 – Moreno Valley Slope Analysis 2016
5. Emergency Operations Plan, City of Moreno Valley, March 2009, http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   Threat Assessment 3 – Wildfire
6. CALFIRE FHSZ Viewer: https://egis.fire.ca.gov/FHSZ/

21. MANDATORY FINDINGS OF SIGNIFICANCE

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?	☐	☒	☐	☐

Response: Based on the preceding analysis of potential impacts in the responses to items 1 thru 20, no evidence is presented that this Project has: the potential to degrade the quality of the environment, as discussed in the Air Quality section; 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, as discussed in the Biological Resources section; or eliminate important examples of the major periods of California history or prehistory, as discussed in the Cultural Resources and Tribal Cultural Resources sections. To ensure all impacts are reduced to less than significant levels, the following Mitigation Measures are required.

Air Quality

MM-AQ-1 Dust Control Procedures
MM-AQ-2 Exhaust Control Measures
MM-AQ-3 Planting Trees
MM-AQ-4 Light-colored Pavement and Roofs
MM-AQ-5 Energy Star Appliances

Biological Resources

MM-BIO-1 Burrowing Owl Survey
MM-BIO-2 If Burrowing Owl Found
MM-BIO-3 Nesting Bird Survey

Cultural/Tribal Cultural Resources

MM-CUL-1 Archaeological Monitoring
MM-CUL-2 Native American Monitoring
MM-CUL-3 Cultural Resources Monitoring Plan Inadvertent Archaeological Finds
MM-CUL-4 Cultural Resource Disposition
MM-CUL-5 Inadvertent Finds
MM-CUL-6 Human Remains
MM-CUL-7 Non-Disclosure of Burial Locations
MM-CUL-8 Archaeology Report – Phase III and IV

Geology and Soils

MM-GEO-4 Inadvertent Paleontological Finds
The City hereby finds that impacts will be less than significant with the incorporated mitigation.

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

Response: 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 Project.

Section 15130(b)(1) of the CEQA Guidelines identifies two methods to determine the scope of related projects for cumulative impact analysis:

- *List-of-Projects Method:* a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

- *Summary-of-Projections Method:* a summary of projections contained in an adopted general plan or related planning document or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency. The proposed Project is consistent with the City of Moreno Valley General Plan, AQMP, and the RTP/SCS (now referred to as "ConnectSoCal"). Therefore, cumulative impacts will be less than significant.

  Potential Cumulative Impacts

  Projects can contribute considerably to cumulative impacts in context of the local or regional environment. A general discussion of potentially significant cumulative impacts is summarized below.

  No Impact

  The analysis found that no impacts to agricultural and forestry resources (Sections 2.b-d), biological resources (Section 4.c), cultural resources (Section 5.a), geology and soils (Section 7.e), hazards and hazardous materials (Sections 9.e and 9.g), hydrology and water quality (Section 10.d), mineral resources (Section 12.b), noise (Section 13.c), population and housing (Section 14.b) would occur.

  Less Than Significant Impact

  The analyses related to aesthetics (Sections 1.a-d), air quality (Sections 3.a and 3.d), biological resources (Sections 4.b and 4.e), energy (Section 6.b), geology and soils (Sections 7.a.i-v), greenhouse gases (Sections 8.a and 8.b), hazards and hazardous materials (Sections 9.a, 9.c, 9.d, and 9.f), hydrology and water quality (Sections 10.b, 10.c.ii, 10.c.iv, and 10.e), land use and planning (Sections 11.a and 11.b), mineral resources (Section 12.a), noise (Sections 13.a-b), population and housing (Section 14.a), public services (Sections 15.a.i through 15.a.v), recreation (Section 16.a-b), transportation (Sections 17.a-d), utilities and services systems (Sections 19.a-c and 19.e), and wildfire (Sections 20.a-d) found that these impacts will be less than significant; therefore, while the Project will contribute incrementally to cumulative impacts, the Project's contribution will not be significant or cumulatively considerable.

  Less Than Significant Impact with Mitigation Incorporated

  Impacts related to air quality (Sections 3.b-c), biological resources (Sections 4.a, 4.d, and 4.f), cultural resources (Sections 5.b-c), energy (Section 6.a), geology and soils (Sections 7.b-d and 7.f), hazards and hazardous materials (9.b), hydrology and water quality (Sections 10.a, 10.c.i, and 10.c.iii), tribal cultural resources (Sections 18.a-b), and utilities and service systems (Section 19.d) were found to be potentially significant and required the following mitigation to reduce potential impacts to less than significant levels:

Air Quality (Section 3)

MM-AQ-1 Dust Control Procedures
MM-AQ-2 Exhaust Control Measures
MM-AQ-3 Planting Trees
MM-AQ-4 Light-colored Pavement and Roofs
MM-AQ-5 Energy Star Appliances

Biological Resources (Section 4)

MM-BIO-1 Burrowing Owl Survey
MM-BIO-2 If Burrowing Owl Found
MM-BIO-3 Nesting Bird Survey

Cultural/Tribal Cultural Resources (Sections 5 and 18)

MM-CUL-1 Archaeological Monitoring
MM-CUL-2 Native American Monitoring
MM-CUL-3 Cultural Resources Monitoring Plan Inadvertent Archaeological Finds
MM-CUL-4 Cultural Resource Disposition
MM-CUL-5 Inadvertent Finds
MM-CUL-6 Human Remains
MM-CUL-7 Non-Disclosure of Burial Locations
MM-CUL-8 Archaeology Report – Phase III and IV

Geology and Soils (Section 7)

MM-GEO-1 Cover Stockpiled Soil
MM-GEO-2 Watering Site for Dust Control
MM-GEO-3 Follow Geotechnical Report
MM-GEO-4 Inadvertent Paleontological Finds

Hazards and Hazardous Materials (Section 9)

MM-HAZ-1 Spills During Construction

Hydrology and Water Quality (Section 10)

MM-HYD-1 SWPPP and WQMP

Utilities (Section 19)

MM-UTL-1 Recycle Construction Materials

Global Impacts

One topic of global concern is climate change. As discussed in Section 8, climate change is the result of numerous, cumulative sources of greenhouse gas emissions all over the world. However, the Project will not contribute considerably to global climate change.

Based on the above analysis concerning the local, regional, and global impacts of the Project in consideration of past, current, and future projects, the City hereby finds that

the contribution of the proposed Project to cumulative impacts will be less than significant with mitigation incorporation.

Based on the analysis of the Project's impacts in the responses to items 1 through 20, the Project will not result in impacts that are individually limited but cumulatively considerable.

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

Response: Based on the analysis of the Project's impacts in the responses to items 1 thru 20, there is no indication that this Project will result in substantial adverse effects on human beings. Long-term effects include increased vehicular traffic, traffic related noise, use of hazardous materials, emissions of criteria pollutants and greenhouse gas emissions. Generally, environmental effects will result in less than significant impacts. The analysis herein concludes that direct and indirect environmental effects will, at worst, require mitigation to reduce to less than significant levels. The following mitigation is recommended to reduce potential impacts related to geology and soils, hazardous materials, hydrology, and utilities to less than significant levels:

Geology and Soils

MM-GEO-1 Cover Stockpiled Soil
MM-GEO-2 Watering Site for Dust Control
MM-GEO-3 Follow Geotechnical Report

Hazards and Hazardous Materials

MM-HAZ-1 Spills During Construction

Hydrology and Water Quality

MM-HYD-1 SWPPP and WQMP

Utilities

MM-UTL-1 Recycle Construction Materials

Based on the analysis in this Initial Study, the City finds that direct and indirect impacts to human beings will be less than significant with mitigation incorporated.