THE TERRACES APARTMENT PROJECT

INITIAL STUDY

Prepared for:

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City of Murrieta Planning Department
Planning Division
1 Town Square
Murrieta, CA 92562

Prepared by:

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January 2023

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INITIAL STUDY

1. Project title:

The Terraces Apartments

- Development Plan -2022-2518
- Tentative Parcel Map-2022-2525 (TM 38373)
- Phasing Plan-2022-2614

2. Lead agency name and address:

City of Murrieta Planning Division (Development Services Department)
Planning Division
1 Town Square
Murrieta, CA 92562

3. Contact person and phone number:

Mr. Jarrett Ramaiya
City Planner/Deputy Director
City of Murrieta Planning Division
(951) 461-6069

4. Project location:

The proposed project is located on a 38.7 gross (31.39 net) acre site comprised of 26 parcels located north of Murrieta Hot Springs Road, east of the Interstate 15 corridor, south of Vista Murrieta Road and west of Sparkman Court in the City of Murrieta, CA (APNs 910-031-001, -002, -003, -004, -005, -007, -008, -009, -010, -015, -017, -018, -021, -022, -023, -024, -025 and -026; 949-190-012, -013, -014, -015, -016 -017, -018 and -019). The site is predominantly vacant and undeveloped land that is traversed by unimproved roads in varying directions (including Jackson Avenue). Remnants of building pads and other improvements related to former residential structures are also present primarily in the northern portion of the site proximal to Vista Murrieta Road. The project location is shown in Figure 1 – Site Map.

5. Project sponsor's name and address:

GS PARKS AT MURREITA, LLC a Delaware limited liability company
380 Stevens Avenue, Suite 305
Solana Beach, CA 92075

Figure 1 — Vicinity Map **- Project Site**

6. General Plan designation:

Commercial/Office and Research Park
No change in General Plan designation proposed

7. Zoning:

Regional Commercial/Office/Transit Oriented Development (TOD) Overlay
No change in zone classification proposed

8. Project Description

The proposed Project would construct 899 apartment units on a 38.7 gross (31.39 net) acre site. The Project consists of eleven (11), four-story apartment buildings and nine (9) two-story carriage unit buildings. A leasing center, clubhouse, swimming pool and various walking paths and green space areas will be provided throughout the Project. A dog park and other outdoor open space area will be provided at the northeast corner of the Site. In total, the Project will provide 359 one-bedroom/one-bathroom units, 482 two-bedroom/two-bathroom units and 58 three-bedroom/two-bathroom units. Of the total, 45 (5 percent) units will be designated affordable and reserved for income-qualifying tenants.

Phase I consists of buildings B1 and B6-B11 containing 652 one-, two- and three-bedroom units ranging in size from 743 square feet to 1,292 square feet. A total of 18 two-story, one-bedroom/one-bathroom (982 square feet) carriage units will also be constructed in Phase I. A total of 1,119 parking spaces (288 garage spaces, 216 tandem spaces, 21 parallel, 503 open and 91 diagonal stalls) will be provided. In addition, Phase I will be required to construct the primary Site access from the intersection of Walsh Center Drive and Monroe Avenue and the secondary Site access to Vista Murrieta Road.

Phase 2 consists of 247 one- and two-bedroom units in Buildings B2-B5 and 381 parking spaces (86 garage, 86 tandem, 14 parallel, 149 open and 46 diagonal stalls). The remaining external and internal circulation elements will be constructed with Phase II. Refer Figure 2 for the Site Plan. Phase I is shown as Site A and Phase II is shown as Site B.

The main Project entrance will be at the intersection of Monroe Avenue and Walsh Center Drive aligning as a four-way intersection approximately 1,100 feet northwest of Murrieta Hot Springs Road. Secondary access will be provided from the project's Vista Murrieta Road driveway access (one ingress lane and two egress lanes) towards existing Vista Murrieta paved improvements approximately 2,700 feet to the northeast. An additional project access driveway is proposed on Monroe Avenue between Walsh Center Drive and Vista Murrieta Road. A 28-foot wide, paved and gated "emergency only" vehicle access will be constructed along the southeastern Site boundary exiting onto Murrieta Hot Springs Road just east of the Interstate 15 northbound on-ramp.

The Project will be required to construct full width Monroe Avenue improvements from the proposed interim cul-de-sac to northwesterly of the existing Eastern Municipal Water District (EMWD) wastewater lift station and then less-than-full width improvements (due to the location of the wastewater lift station) will be required from northwesterly of the EMWD lift station to the project's southeasterly property line. The Project will also be required to construct ultimate half width frontage improvements (per City Street Standards) plus a twelve foot (12') paved lane and a ten foot (10') graded shoulder opposite the centerline, from the project's southwesterly property line to the project's northeasterly property line, along Vista Murrieta Road. The Project shall pay an in-lieu fee for ultimate improvements required for the Monroe Avenue and Vista Murrieta ultimate connection. Or, the project has the option to construct the ultimate connection improvements. The Project shall pay a fair share cost towards the installation of a new traffic signal at the intersection of Hancock Avenue and Walsh Center Drive. Additionally, the Project will be required to install a new traffic signal at the intersection of Sparkman Court (Monroe Avenue) and Murrieta Hot Springs Road.

The Project would require approximately 4,300 cubic yards of imported material. Assuming 16 cubic yards per truck, a total of 269 trips would be required. The site preparation and grading phases, during which fill material will be delivered to the site, is projected to occur over 105 days. Eastern Municipal Water District (EMWD) will provide water and sewer service to the Site. The Project will extend existing sewer lines to the Site from an existing mainline located north of Sparkman Court/Monroe Avenue lift station. A new 18" water main will be installed in the old Monroe Avenue alignment from the northwest corner of the Site at the Vista Murrieta Road intersection north to Los Alamos Road. Construction will utilize an open trench on either side of an existing at-grade jurisdictional crossing. Directional drilling will be used to install the waterline under the jurisdictional feature to avoid directly impacting this jurisdictional resource. Wet and dry utility improvements will occur while road improvements are being installed to minimize the need for road closure and overall construction-related impacts to neighboring residents.

Offsite runoff will be treated with modular wetland systems and implementation of Green Streets methods. Onsite Project runoff will be treated with a combination of modular wetland systems and biofiltration basins. Both off- and on-site stormwater will be mitigated for hydromodification with underground basins. The total area dedicated to an on-site stormwater management system will be approximately 0.38 acres.

The proposed Project contains three drainage features. Drainage 1 as it is referred to herein, is located at the southeastern corner of the Site. This drainage feature will be protected from potential impacts associated with the development by implementing a 50-foot buffer around the jurisdictional boundary and implementation of a deed restriction or conservation easement on the parcel. Drainage 2 is located in the northern portion of the Site. The Project will remove this drainage which totals 0.06 acres and 795 linear feet of US Army Corps of Engineers/Regional Board non-wetland waters and 0.06 acres and 795 linear feet of CDFW jurisdictional streambed/riparian habitat. Drainage 3, crosses old Monroe Avenue north of the site. Impacts associated with installing a new water mainline from the site north to Los Alamos Road will be

avoided by using horizonal directional drilling to install the water line under the feature as stated above. The Applicant will purchase mitigation credits through the Riverpark Mitigation Bank or similar conservation area at a ratio of 3:1 for a total of 0.18 acres to compensate for the loss of non-wetland jurisdictional resources comprising Drainage 2.

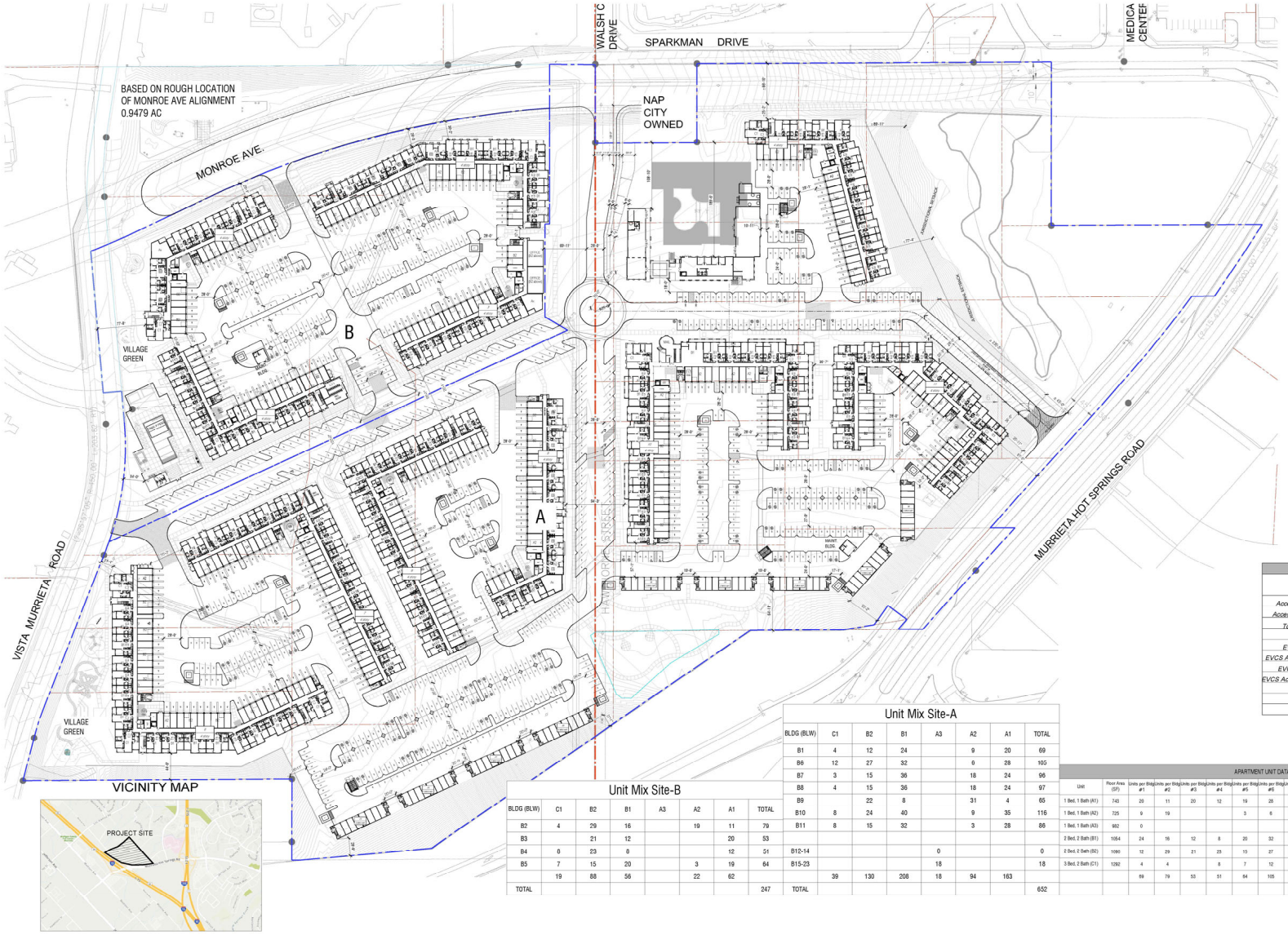
Of the total site, approximately 4.4 acres (191,664 square feet) (15% of net site area) would be landscaped. This would include internal landscape enhancements, perimeter sloped areas, street frontage improvements, parking lot shade trees and play amenity areas.
Project construction is scheduled to begin in late 2023 with Phase I completed in early 2026. Build out of Phase II is expected by 2028. The proposed Site plan is shown on Figure 2 – Site Plan.

9. Surrounding Land Uses and Setting

The Site is surrounded by urban to semi-urban land uses including low density single-family residential to the north, the Interstate 15 freeway corridor to the west. General commercial uses are located to west, and west of Interstate 15. Medical office buildings are located to the east and southeast and Murrieta Hot Springs Road to the south. The Site is underutilized vacant area with remanent concrete foundations, driveway segments, ornamental landscaping, and other indications of previous residential development are located in the northern portion of the Site. The topography is undulating, with ridges that run east to west and slopes that generally trend to the west towards the I-15 corridor. A jurisdictional wetland feature is located in the southwest corner of the site adjacent to Sparkman Court to the east and Murrieta Hot Springs Road to the south and terminates under Interstate 15.

10. Other public agencies whose approval is required:

Eastern Municipal Water District – water and sewer connections
Southern California Edison – electrical line relocation and undergrounding permit
US Army Corps of Engineers – Clean Water Act Section 404 Nationwide Permit
San Diego Regional Water Quality Control Board – Clean Water Act Section 401 Water Quality Certification
California Department of Fish & Wildlife – Section 1602 Streambed Alteration Agreement
Murrieta Valley Unified School District – receipt for payment of impact fees
California Department of Transportation – approval of emergency vehicle access location and stormwater outfall into Interstate 15 right of way.
California Department of Transportation – Encroachment Permit



Project Description		
SITE GROSS AREA		40.03 acres
SITE NET AREA		29.44 acres
TOTAL UNITS		Site A = 652 units
		Site B = 247 units
		= 899 units
SITE AREA		Site A = 22.60 acres
		Site B = 7.22 acres
DENSITY ON GROSS AREA		Site A=28.84 DU/AC
		Site B=34.2 DU/AC
BIOFILTRATION		0.38 acres

Total Unit Mix				
	unit types		unit count	unit area
A1	1bed / 1bath		225	743 s.f.
A2	1bed / 1bath		116	825 s.f.
A3	1bed / 1bath		18	982 s.f.
		total	359	39%
B1	2 bed / 2 bath		264	1,054 s.f.
B2	2 bed / 2 bath		218	1,080 s.f.
		total	482	54%
C1	3 bed / 2 bath		58	1,202 s.f.
		total	58	7%
TOTAL			899 UNITS	
			871,363 NRSF	
			969.2 AVG. NRSF	

Parking Requirements Site - A (Per Development Code 9903.6 (a)(1))			
unit types	unit count	ratio	qty.
1 bedroom units	275	1	275
2 bedroom units	338	1.5	507
3 bedroom units	39	1.5	59
SITE-A TOTAL	652		841

Parking Requirements Site - B (Per Development Code 9903.6 (a)(1))			
unit types	unit count	ratio	qty.
1 bedroom units	84	1	84
2 bedroom units	144	1.5	216
3 bedroom units	19	1.5	29
SITE-B TOTAL	247		329
TOTAL REQUIRED			1,170

Parking Summary-PROVIDED					
Parking Type	Qty.		%		Total
	Site-A	Site-B	Site-A	Site-B	
Open Stalls	503	149	44%	38%	652
Garages	288	86	26%	23%	374
Diagonal Stalls	91	46	8%	12%	137
Tandem Stalls	216	86	20%	23%	302
Parallel Stalls	21	14	2%	4%	35
TOTAL	1,119	381	100%	100%	1,500

Accessible Parking + EVCS Stall Summary					
Parking Type	Qty.		%		Total
	Site-A	Site-B	Site-A	Site-B	
Accessible Assigned Stalls	14	4	67%	57%	18
Accessible Unassigned Stalls	7	3	33%	43%	10
Total Accessible Stalls	21	7	100%	100%	28
EVCS Assigned Stalls	68	20	80%	74%	88
EVCS Accessible Assigned Stalls	1	1	1%	4%	2
EVCS Unassigned Stalls	14	5	17%	18%	19
EVCS Accessible Unassigned Stalls	2	1	2%	4%	3
Total EVCS Stalls	85	27	100%	100%	112
TOTAL	106	34			140

Unit Mix Site-A

BLDG (BLW)	C1	B2	B1	A3	A2	A1	TOTAL
B1	4	12	24		9	20	69
B6	12	27	32		0	28	103
B7	3	15	36		18	24	96
B8	4	15	36		18	24	97
B9		22	8		31	4	65
B10	8	24	40		9	35	116
B11	8	15	32		3	28	86
B12-14				0			0
B15-23				18			18
	39	130	208	18	94	163	
TOTAL							652

Unit Mix Site-B

BLDG (BLW)	C1	B2	B1	A3	A2	A1	TOTAL
B2	4	29	16		19	11	79
B3		21	12			20	53
B4	0	23	6			12	51
B5	7	15	20		3	19	64
	19	88	56		22	62	
TOTAL							247

LEGEND:
140-EVCS Stalls

APARTMENT UNIT DATA

Unit	Floor Area (SF)	Units per Bldg #1	Units per Bldg #2	Units per Bldg #3	Units per Bldg #4	Units per Bldg #5	Units per Bldg #6	Units per Bldg #7	Units per Bldg #8	Units per Bldg #9	Units per Bldg #10	Units per Bldg #11	Units per Bldg #15-23	Total Units per Unit Type
1 Bed, 1 Bath (A1)	743	20	11	20	12	19	28	24	24	4	35	28		225
1 Bed, 1 Bath (A2)	725	9	19			3	6	18	18	31	9	3		116
1 Bed, 1 Bath (A3)	982	0											18	18
2 Bed, 2 Bath (B1)	1054	24	16	12	8	20	32	36	36	8	40	32		264
2 Bed, 2 Bath (B2)	1090	12	29	21	23	10	27	15	10	22	24	10		218
3 Bed, 2 Bath (C1)	1292	4	4		8	7	12	3	4		8	8		58
		69	79	53	51	84	105	96	97	65	116	86	18	899

NORTH

A1.4

PRELIMINARY PROJECT MASTER PLAN

SCALE : 1"=60'

DATE: 08-15-22

JOB NO.: 2021-230

The Terraces at Murrieta SPARKMAN CT. & WALSH CENTER DR., MURRIETA, CA.(AP# 910-031-001 thru -005; 007; thru -010; -015; -017; -018; 910-031-021 thru -026; 910-190-012 thru -019)

GREYSTAR
444 So. Cedros Ave., STE-172, Solana Beach, Ca 92075
(858) 245-1937

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

AO Architecture. Design. Relationships.

Figure 2 — Site Plan

11. 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, has consultation begun is there a plan for consultation?

The City of Murrieta conducted a tribal consultation per AB 52 and several tribes indicated that the Site has cultural significance to their tribes. Of the tribes noticed, three responded; Pechanga Band of Luiseño Indians, Rincon Band of Luiseño Indians and Soboba Band of Luiseño Indians. Through public review, staff will continue to consult with Pechanga, Soboba and Rincon under AB 52.

A Phase I Cultural Resources Report was prepared for the proposed Project. As part of the process, a Sacred Lands File (SLF) search was conducted by the Native American Heritage Commission. Tribal representatives identified as part of the SLF search were noticed during preparation of the Phase I Cultural Resources Report. Responses are provided as part of the Phase I Cultural Resources Report (Appendix E). The AB 52 process is addressed in Section XIX, Tribal Cultural Resources.

ENVIRONMENTAL FACTORS AFFECTED

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

☐ Aesthetics	☐ Agriculture and Forest 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

DETERMINATION:

On the basis of this initial evaluation:

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

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation 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 potential 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 Date

_____

Printed Name

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based on its effect on 20 major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact**: No impacts are identified or anticipated, and no mitigation measures are required.
2. **Less than Significant Impact**: No significant adverse impacts are identified or anticipated, and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated**: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List of mitigation measures)
4. **Potentially Significant Impact**: Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (List of the impacts requiring analysis within the EIR).

In addition to mitigation measures included herein to reduce potentially significant impacts to less than significant, the City of Murrieta requires the implementation of standard conditions that are intended to ensure that potential environmental impacts associated with project construction and operation remain less than significant. These measures, while not required to avoid a significant or adverse impact, are included herein as mitigation and labeled Standard Conditions (SC), and the Mitigation Measures required to address project specific impacts are labeled MM.

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. <u>AESTHETICS</u> – would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view 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?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Implementation of the project would occur on a vacant and disturbed site. The Site does contain foundation remnants of previous single-family residences, numerous unpaved roads that show evidence of off-highway vehicle use, areas of scattered debris. The Site is located within an area currently developed with low density single-family residential uses to the north, Interstate 15 to the west, medical office buildings east of the site across Sparkman Court. Vacant land zoned *The Triangle Specific Plan 276*, is located to the south on the south side of Murrieta Hot Springs Road. Views within the area are not designated scenic nor does the site contain any unique visual features (Murrieta General Plan, 2012). The segment of Interstate 15 located west of the project site is not designated scenic.

The Project would construct eleven (11), four-story apartment buildings and nine (9) cotwo-story carriage unit buildings in two phases. Phase I consists of buildings B1 and B6-B11 containing 634 one-, two- and three-bedroom units ranging in size from 743 square feet to 1,292 square feet. A total of 18 two-story, one-bedroom/one-bathroom (982 square feet) carriage units will also be constructed in Phase I. A total of 1,119 parking spaces (288 garage spaces, 216 tandem spaces, 21 parallel and 503 open stall and 91 diagonal spaces) will be provided. Phase 2 consists of 247 one- and two-bedroom units in Buildings B2-B5 and 381 parking spaces (86 garage, 86 tandem, 14 parallel and 149 open stalls and 46 diagonal spaces).

The project Site and surrounding area are generally zoned Office/TOD Overlay or multi-family residential. While the Site and surrounding area was envisioned for office development, multifamily is allowed and encouraged under the TOD overlay. Thus, the proposed Project and projects similar in scope were envisioned for this area. The project would be designed per City of Murrieta design standards as stipulated in Title 16.18 (*General Property Development and Use Standards*) and related section of the Municipal Code and be visually consistent with the multifamily residential development on the south side of Walsh Center Drive east of the site. While views of the Site would change, no designated scenic views or resources would be affected and would enhance the views of the site. Therefore, impacts to scenic vistas would be **less than significant.**

Source: City of Murrieta General Plan, 2012.

b) There are three designated state scenic highways in Riverside County as defined by the California Department of Transportation. The nearest state-designated scenic highway to the study area is the segment of State Route 74 (SR-74) that extends from the western boundary of the San Bernardino National Forest (25 miles east of the site) to Highway 111 in the City of Palm Desert. There are presently no officially designated State Scenic Highways that traverse Murrieta. However, Interstate 15 (I-15), which traverses the southwestern portion of Murrieta, is an “Eligible State Scenic Highway" (Murrieta General Plan Final Environmental Impact Report, July 2011). There are no protected/historic tree species, historic structures or other visually prominent features on the site. Therefore, **no impact** to these resources would occur as a result of project implementation.

Source: California Department of Transportation. *Officially Designated State Scenic Highways,* website visited June 1, 2018.
Source: Murrieta General Plan Final Environmental Impact Report, July 2011.

c) The Site could be characterized as being in an urbanized area as defined by Section 15387 of the CEQA Guidelines and depicted in the US Department of Census 2010 Riverside-San Bernardino, California, Urbanized Area Reference Map (US Department of Census, 2010). Implementation of the project would occur on a primarily underutilized vacant site zoned Office/TOD Overlay. Views from the north and south are of a vacant disturbed site with mature eucalyptus trees. Because of the terrain and ridges, there are no views through the site from the north or south. Views from the Site are of low-density single-family residential to the north,

Sparkman Court and medical office buildings to the east, the Interstate 15 corridor to the west and Murrieta Hot Springs Road to the south. As referenced, the road corridors are not designated scenic nor does the site contain any unique visual features. Non-native ornamental trees are located throughout the property. Some appear to be remnant ornamental landscaping associated with previous residential development. With the exception of the trees located in the jurisdictional area at the southeastern portion of the site, all trees would be removed during construction. No street trees or trees protected under Section 16.42 of the City of Murrieta Municipal Code occur on the property or would be impacted by project-related activities. While intermediate views of the site would change the overall visual setting would not be alter and would still be urban in nature, therefore site impacts would be **less than significant**.

Source: Site observation
Source: 2010 Census – Urbanized Area Reference Map (Riverside-San Bernardino)
https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua75340_riverside--san_bernardino_ca/DC10UA75340.pdf
Source: Biological Resources Report/Arborist Report

d) The Project could be consider as an urbanized area and would introduce add new structures, lighting, fences, railings, windows, landscape elements which would be visible from adjacent streets, highways, and nearby residences. Temporary outdoor lighting may be visible during operation of construction equipment; however, construction is expected to occur primarily during daylight hours. The development would occur consistent with standards provided in Section 16.18.100 of the Murrieta Municipal Code. This requires the lighting be architecturally integrated with the character of adjacent structure(s); be directed downward and shielded so that glare is confined within the boundaries of the subject parcel; be installed so that lights do not blink, flash, or be of unusually high intensity or brightness and are appropriate in height, intensity and scale to the uses they are serving. Outside and parking lot lighting shall not exceed 0.3 footcandles at residential property lines. The project lighting would be designed to ensure that the proposed project would not create a significant new source of substantial light or glare. As a result, the proposed project would have a less than significant cumulative impact and would be **less than significant.**

Source: Site observation and Murrieta Municipal Code

Note that all aesthetic impacts associated with the Project are anticipated to be less than significant or have no impact as stated for threshold b. The following standard conditions are required by the City of Murrieta to be implemented by all projects to minimize aesthetic impacts and would be incorporated as conditions of approval.

> **SC AES-1**: The Applicant shall meet the provisions of City of Murrieta Municipal Code Section 16.42 pertaining to Tree Preservation and Removal. The Applicant shall obtain City approval to remove any trees on site through tree removal permit(s). The Applicant shall meet the provisions of 16.42.070 Tree Removal Permit which outlines further requirements pertaining to the tree removal permit process.

SC AES-2: The Applicant shall avoid compaction of soil during construction in areas where trees are located within or adjacent to the project site that do not require removal. The Applicant shall avoid root removal in all instances where it is possible to do so. The Applicant shall utilize the following Tree Preservation Guidelines:

Root Pruning

a. There shall be no disturbance to roots more than 2 inches in diameter. Roots less than 2 inches in diameter must be cleanly cut to encourage good callus tissue. It is recommended that roots be pruned back to the next root node.
b. Recommended distances from the trunk that roots should be pruned have been established for construction activities around trees. The recommendations are: Preferred distance – 5 times the diameter of the tree at breast height (dbh); Minimum distance – 3 times dbh.
c. The recommended time to prune roots is before active root growth in late summer and fall.
d. The less frequently roots are pruned the less impact there will be on tree health and stability.

Root Protection Zone

a. A root protection zone shall be defined by a minimum 42" high barrier constructed around the proposed outflow area. This barrier shall be at the drip line of the tree or at a distance from the trunk equal to 6 inches for each inch of trunk diameter 4.5 feet above the ground, if this method defines a larger area.
b. Should it be necessary to install irrigation lines within this area, the line shall be located by boring, or an alternate location for the trench is to be established. The minimum clearance between an open trench and a tree shall be no closer than 10 feet or 6 inches for each inch of trunk diameter measured at 4.5 feet above existing grade, if this method defines a larger distance. The maximum clearance shall be 10 feet. The contractor shall conform to these provisions c. At no time shall any equipment, materials, supplies or fill be allowed within the prescribed root protection.

Protection from Root Compaction

a. No vehicles shall be permitted to be parked under the dripline of trees in non-paved areas. Avoid placing heavy equipment, large rocks or boulders, and gravel under the drip line of the tree. The object is to avoid soil compaction, which makes it difficult for roots to receive oxygen from the soil.

Preventing Damage from Grade Changes adjacent to the proposed outflow area

Preventing tree damage from grade changes must be undertaken before the grade of the land is actually altered. Trees that are seriously declining due to grade changes seldom respond to corrective measures designed to save them.

If fill must be placed over tree roots, a well and drainage system must be installed. The dry well must be large enough to allow for future growth of the trunk. Agricultural drain tile (4 to 6 inches) should be placed on the natural grade of the land. The tile should drain to a lower level to prevent water from collecting within the well. Cover the tile with 6 to 8 inches of 2- to 3-inch stone. (Do not use limestone because this will raise the soil pH and could adversely affect tree growth.) Connect vent tiles with the drain tile to allow for gaseous exchange between the root zone and atmosphere. The fill should consist of a sandy soil or organic matter such as biochar to allow maximum aeration of the root zone.

For lowering the grade, all cuts in the natural grade must be made outside the dripline of a tree. Where trees are growing on a slope, the landscape sometimes is cut and filled to create a level site. Again, all grade changes should be made outside the dripline of the tree.

SC AES-3: For future development located in or immediately adjacent to residential zoned properties, construction documents shall include language that requires all construction contractors to strictly control the staging of construction equipment and the cleanliness of construction equipment stored or driven beyond the limits of the construction work area. Construction equipment shall be parked and staged within the project site, as distant from the residential use, as reasonably possible. Staging areas shall be screened from view from residential properties.

SC AES-4: Construction documents shall include language requiring that construction vehicles be kept clean and free of mud and dust prior to leaving the development site. Streets surrounding the development site shall be swept daily and maintained free of dirt and debris.

SC AES-5: Construction worker parking may be located off-site with prior approval by the City. On-street parking of construction worker vehicles on residential streets shall be prohibited.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
II. <u>AGRICULTURE AND FOREST RESOURCES</u> -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES -- Would the project:				
Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

a) The project site is zoned Office/TOD which is intended to support various office and commercial uses, and allows multi-family development. The site was developed with existing single-family residences and remnant features associated with previous occupancy. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs on the project site and these resources would not be affected by project implementation. **No impact** would occur under this threshold.

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2018

b) The project site is not enrolled in a Williamson Act contract. The proposed project would not conflict with or change any zoning designations designed to promote agriculture. **No impact** would occur under this threshold**.**

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2018

c-e) Neither the Site nor surrounding areas are used for timber production or commercial agriculture. The project would not conflict with or change any zoning designations designed to preserve timber or agricultural resources. **No impact** would occur under this threshold.

Source: City of Murrieta Zoning Map, June 2014.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY -- Would the project:				
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?	☐	☐	☒	☐

The material presented herein is based on the *Air Quality and Greenhouse Gas Study for The Terraces Apartment Project* prepared by Birdseye Planning Group, September 2022 (Appendix A) and the Health Risk Screening Letter prepared by Ldn Consulting, Inc. (January 2022) (Appendix B).

The project Site is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by generating emissions that equal or exceed the established long-term quantitative thresholds for pollutants or exceed a state or federal ambient air quality standard for any criteria pollutant. A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by generating emissions that equal or exceed the established long term quantitative thresholds for pollutants or exceed a state or federal ambient air quality standard for any criteria pollutant. Table 1 shows the significance thresholds that have been recommended by the SCAQMD.

Table 1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	**Construction**	**Operation**
Nitrogen Oxides (NO_x)	100 lbs/day	55 lbs/day
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Particulate Matter 10 (PM_{10})	150 lbs/day	150 lbs/day
Particulate Matter 2.5 ($PM_{2.5}$)	55 lbs/day	55 lbs/day
SO_x	No standard	150 lbs/day
CO	550 lbs/day	550 lbs/day

[a] *Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, unless otherwise stated.*
[b] *Ambient air quality threshold based on SCAQMD Rule 403.*

lbs/day = pounds per day

Localized Significance Thresholds. In addition to the thresholds described above, the SCAQMD has developed Localized Significance Thresholds (LSTs). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size and distance to the sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for Nitrogen Oxides (NO_x,), CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003). As such, LSTs for operational emissions do not apply to the proposed development as the majority of emissions would be generated by cars on roadways. LSTs have been developed for emissions within areas

up to five acres in size, with air pollutant modeling recommended for activity within larger areas.

Construction emissions associated with implementing the proposed project were calculated using the CalEEMOD version 2020.4.0 (2021) software. Construction emissions modeling for site preparation, grading, building construction, paving, and architectural coating application is based on the overall scope of the proposed development and construction phasing. Project construction is scheduled to begin in early 2023 and be complete by early 2026. In addition to SCAQMD Rule 403 requirements for fugitive dust control, emissions modeling also accounts for the use of low-VOC paint (50 g/L for non-flat coatings) as required by SCAQMD Rule 1113.

a) The SCAQMD has established criteria for determining consistency with the Air Quality Management Plan (AQMP), currently the 2016 AQMP, in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993). The criteria are as follows (SCAQMD 193):

> **Consistency Criterion No. 1:** The project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP.
>
> **Consistency Criterion No. 2:** The project will not exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

As stated under threshold (b-c) below, construction and operation emissions would not exceed SCAQMD thresholds; thus, the project will not cause or contribute to new violations or delay the timely attaining of air quality standards specified in the AQMP. Thus, the Project satisfies Consistency Criterion 1.

With respect to Consistency Criterion No. 2, the 2016 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the SCAQMD are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Therefore, development consistent with the growth projections in the Murrieta General Plan is considered to be consistent with the AQMP.

The Project is zoned Regional Commercial/Office and is located within a Transit Oriented Development (TOD) Overlay District, which allows for multi-family at a minimum density of 30 dwelling units per acre. The General Plan land use designation is Commercial Office/Research Park (ORP). The proposed residential project is a permitted use in the TOD Overlay District and subject to standards stipulated in Section 16.16.040 of the Murrieta Municipal Code. The project would provide 899 housing units, at 2.8 person per household which is approximately 2,572 residents.

The Southern California Association of Governments (SCAG) has conducted a Regional Housing Needs Assessment (RHNA) to determine the City's share of housing needs. The RHNA quantifies Murrieta's local share of housing needs by income category. The income categories are based on the most current Median Family Income (MFI) for Riverside County. The City's 2021-2029 RHNA is as follows:

- 1,008 units - Very low income (0-50% County MFI)
- 584 units - Low income (51-80% of County MFI)
- 545 units - Moderate income (81-120% of County MFI)
- 906 units above moderate income (120% or more of County MFI)

The total number of housing units for Murrieta as specified in the RHNA is 3,043. As allowed per State Density Bonus Law, the proposed Project would provide 45 very low-income units. The remainder would be market rate units. The Project will provide 5 percent of the very low-income housing allocation and approximately 30 percent of the total housing units allocated to Murrieta in the RHNA.

The Project would not create any substantial housing or jobs that would exceed that anticipated as part of the local land use planning process. However, there will be some additional job opportunities associated with the future operations of the Project. Project-related emissions would not exceed thresholds recommended by the SCAQMD. Thus, the Project would comply with Consistency Criterion 2; and thus, would be consistent with the AQMP. **No impact** would occur under threshold (a).

Source: South Coast AQMD. *Air Quality Management Plan*, 2016
Source: Air Quality and Greenhouse Gas Study, Birdseye Planning Group, September, 2022.

b) Project construction would generate temporary air pollutant emissions. Both construction emissions and vehicle emissions associated with operation of the facility are quantified herein. The CalEEMod output file for summer emissions are provided as Appendix A.

Construction Emissions

Project construction would generate temporary air pollutant emissions. Both construction emissions and vehicle emissions associated with operation of the facility are quantified herein. The CalEEMod output file for summer emissions are provided as Appendix A.

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction vehicles, work crew vehicle trips in addition to ROG that would be released during the drying phase upon application of paint and other architectural coatings. For the proposed Project, construction would generally consist of demolition and/or removal of the remnant foundations and driveways, site preparation, grading the building pads and parking areas, construction of the buildings, paint application and paving the parking lot and circulation area/drive aisles. It is

anticipated that approximately 20 haul trips would be required to remove remnant foundation material associated with previous development on the site.

The Project would be required to comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. Therefore, the following conditions, which are required to reduce fugitive dust in compliance with SCAQMD Rule 403, were included in CalEEMod for site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least two times daily, preferably in the late morning and after work is done for the day.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.
4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

Construction emissions modeling for demolition, site preparation, grading, building construction, paving, and architectural coating application is based on the overall scope of the proposed development and construction phasing which is expected to begin early 2023 and be completed mid-2026. For modeling purposes, the site would be watered twice daily for dust

control. In addition to SCAQMD Rule 403 requirements, emissions modeling also accounts for the use of low-VOC paint (100 g/L for traffic coatings [parking lot and lane striping] and 50 g/L for residential buildings) as required by SCAQMD Rule 1113. Further, it was assumed that the painting phase would be overlapped with the building construction phase by 87 work days to reduce daily ROG emissions. Table 3 summarizes the estimated maximum daily emissions of pollutants occurring during 2023 through 2026.

As shown in Table 2, construction of the proposed project would not exceed the SCAQMD regional thresholds. No mitigation in addition to compliance with SCAQMD Rule 403 and Rule 1113 would be required to reduce construction emissions to less than significant.

Table 2
Estimated Maximum Daily Construction Emissions

Construction Phase		Maximum Emissions (lbs/day)				
	ROG	NO_x	CO	SOx	PM_{10}	$PM_{2.5}$
Emissions – 2023	5.2	34.5	53/6	0.15	21.1	11/3
Emissions - 2024	4.9	22.2	51.2	0.15	12.6	3.8
Emissions – 2025	4.6	21.0	48.8	0.14	12.5	3.7
Emissions – 2026	72.1	22.2	54.4	0.16	14.7	4.4
SCAQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded 2023	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2024	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2025	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2026	**No**	**No**	**No**	**No**	**No**	**No**

Localized Significance Thresholds. The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. Construction-related emissions reported by CalEEMod are compared to the localized significance threshold lookup tables. The CalEEMod output in Appendix A shows the equipment assumed for this analysis.

LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size and distance to the sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location,

including idling emissions during both project construction and operation. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003). The proposed project would not generate on-site or stationary source emissions. All emissions during project operation would be associated with motor vehicle use. Thus, LSTs for operational emissions would not apply to the proposed project.

LSTs have been developed for emissions within areas up to five acres in size, with air pollutant modeling recommended for activity within larger areas. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The site is 38.7 gross acres (31.39 net) in size; however, based on the equipment mix used, a maximum of 3.5 acres would be disturbed daily during site preparation and five acres during grading. Look up table values for five acres were used to evaluate potential impacts. The Project site is located in Source Receptor Area 26 (SRA-26, Temecula Valley). LSTs for construction related emissions in the SRA 26 at varying distances between the source and receiving property are shown in Table 3.

Table 3
SCAQMD LSTs for Construction

Pollutant	Allowable emissions as a function of receptor distance in meters from a five-acre site (lbs/day)				
	25	**50**	**100**	**200**	**500**
Gradual conversion of NO_x to NO_2	371	416	520	672	1,072
CO	1,965	2,714	4,282	8,547	29,256
PM_{10}	13	40	59	96	207
$PM_{2.5}$	8	10	16	31	105

Source: http://www.aqmd.gov/CEQA/handbook/LST/appC.pdf, October 2009.

The nearest sensitive receptors to the project Site are located approximately 75 feet east of the northeast corner of the site at the intersection of Walsh Center Drive and Sparkman Court. To provide a conservative evaluation of construction emissions relative to LST thresholds, allowable emissions for 25 meters were used. Daily unmitigated emissions are shown in Table 4. Note that the values in Table 5 do not reflect watering of disturbed soils twice daily required for compliance with SCAQMD Rule 403 referenced above. As shown, daily emissions of PM_{10} and $PM_{2.5}$ would exceed the LSTs for 25 meters shown in Table 3 for both PM_{10} and $PM_{2.5}$ during site preparation and grading. However, watering the site twice daily required per SCAQMD Rule 403, would reduce PM_{10} emissions to 10.1 pounds daily and $PM_{2.5}$ emissions to 5.7 pounds daily. With implementation of standard measures required per SCAQMD Rule 403, emissions would be less than the LST. No mitigation would be required.

Table 4
Estimated Daily Unmitigated On-Site Construction Emissions and LSTs

On-Site Construction Emissions	NOx	CO	PM_{10}	$PM_{2.5}$
-Demolition	21.4	19.6	1.3	0.9
- Site Preparation	27.5	18.2	**20.9**	**11.2**
- Grading	34.5	28.0	10.6	4.9
-Building Construction[1]				
- 2023	14.3	16.2	0.6	0.6
- 2024	13.4	16.1	0.6	0.6
- 2025	12.4	16.0	0.5	0.5
- 2026	12.4	16.0	0.5	0.5
- Paving	8.5	14.5	0.4	0.4
- Architectural Coating	1.4	1.8	0.05	0.05
Local Significance Threshold – 25 meters (on-site only)[3]				
Threshold Exceeded	No	No	Yes	Yes

Notes: All calculations were made using CalEEMod. See Appendix A. Grading, Paving, Building Construction, and Architectural Coating totals include worker trips, construction vehicle emissions and fugitive dust.
Site Preparation and Grading phases do not incorporate anticipated emissions reductions required by SCAQMD Rule 403 to reduce fugitive dust.
[1] Building construction phase would include 2023 through 2026.
[2] LSTs are for a 5-acre disturbance area in SRA-26 within 25 meters of sensitive properties boundary.

Operation Emissions

Table 5 summarizes emissions associated with operation of the proposed Project. Operational emissions would consist of area and mobile sources associated with maintenance and landscaping, including quarterly grading of Vista Murrieta Road fronting the northern site boundary. As shown in Table 5, operational emissions would not exceed the SCAQMD thresholds for ROG, NO_X, CO, SO_X, PM_{10} or $PM_{2.5}$. Therefore, the Project's regional air quality impacts (including impacts related to criteria pollutants, sensitive receptors and violations of air quality standards) would be less than significant per threshold b. Further, the Project would not contribute to a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment. As discussed, the South Coast Air Basin is a nonattainment area for ozone, PM_{10} and $PM_{2.5}$. Emissions of ozone precursor emissions (i.e., ROG and NOx), PM_{10} and $PM_{2.5}$ would not exceed the SCAQMD thresholds. Impacts relative to threshold b would be **less than significant**.

Table 5
Estimated Operational Emissions

	Estimated Emissions (lbs/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project						
Area Emissions	21.9	1.6	74.6	0.01	0.4	0.4
Energy Emissions	0.3	3.2	1.3	0.01	0.2	0.2
Mobile Emissions	12.2	15.4	115.6	0.2	31.1	8.4
Total	**34.4**	**20.2**	**191.5**	**0.22**	**31.7**	**9.0**

SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix for CalEEMod version. 2020.4.0 computer model output for site preparation and paving emissions. Summer emissions shown.

Source: California Emission Estimator Model, 2020.4.0
Source: The Terraces Air Quality and Greenhouse Gas Study, Birdseye Planning Group, September 2022.

Health Risk Assessment. The purpose of this Air Quality Heath Risk screening letter is to identify potential health risks at the proposed project site from Diesel Particulate Matter (DPM) originating from Interstate 15 (I-15). The City of Murrieta General Plan Goal AQ-2 and Policy AQ 2.2 states that locating new homes, schools, childcare and elder care facilities, and health care facilities within 500 feet of freeways should be avoided. Because the project site is within 500 feet of the Interstate 15 corridor, a Health Risk Assessment (HRA) was prepared to estimate overall health risk and identify measures that can be implemented to reduce potential health risks to less than significant.

The HRA uses the California Office of Environmental Health Hazard Assessment (OEHHA) methodologies (Office of Environmental Health Hazard Assessment, 2015) as outlined by the California Air Pollution Control Officers Association (CAPCOA, July 2009). Health risk impacts are generally defined as one of two types. Type A projects have the potential to emit toxic emissions and impact nearby receivers. Type B projects place new receptors in the vicinity of existing toxic emission sources like freeways, high traffic roads or rail yards. The proposed Project is a Type B project because it would locate sensitive properties within 500 feet of Interstate 15. There are no clear significance thresholds for evaluation of Type B projects under CEQA. Further, the City of Murrieta has not established significance thresholds.

According to California Air Pollution Control Officers Association (CAPCOA), air districts have historically recommended CEQA thresholds for air pollutants in the context of the air district's clean air attainment plan, or (in the case of toxic air pollutants) within the framework of a rule or policy that manages risks and exposures due to toxic pollutants such as SCAQMD Rules 1401 and 1402 for Type A projects. For purposes of this analysis significance thresholds for Type A projects are used. Specifically, within this context, health risk is defined as cancer risk and the likelihood of acquiring cancer as a result of living in proximity to an emission source. Calculations are based on a 70-year lifetime exposure. In some limited cases, it may be appropriate to 9 to 40 years of exposure. The 9-year exposure scenario is based on exposure to children during the first 9 years of life. Some districts use the 9- year exposure scenario to model short term projects. For purposes of this analysis, the 30-year duration is used. A cancer risk greater than 10 in one million is considered significant for the purpose of this evaluation. AERMOD was used to model air dispersion and is the preferred/recommended U.S. Environmental Protection Agency (EPA) model for roadway source modeling. The software has the ability to incorporate meteorological inputs as well as multiple source and receptor locations. The model input/output is shown in Attachment A of Appendix B. A total of three receptor sites along the western portion of the Project site closest to Interstate 15. The receiver

sites are shown in Figure 3. Table 6 shows the DPM concentration at each of the receptor locations in micrograms per cubic meter (µg/m^3).

Table 6
Diesel Particulate Matter Concentrations

Receiver Number	AERMOD Receiver Name	DPM Concentration (µg/m^3)
1	R1	0.511
2	R2	0.535
3	R3	0.448

Source: Health Risk Screening Letter, Ldn Consulting, Inc. (January 2022) (Appendix B)

The dispersed concentrations of diesel particulates are used to estimate exposure to people. Cancer Risk Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). The average daily inhalation dose (mg/kg-day) multiplied by the cancer potency factor to calculate the inhalation cancer risk, which is an expression of the chemical's cancer risk during a 70-year lifespan of exposure. Exposure considers the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. The cancer risk is shown in Table 7. The cancer risk calculations do not reflect heating and ventilation air filtration systems; and thus, can be considered risk associated with outdoor exposure. As shown in Table 7, cancer risks would exceed 10 per one million exposed; and thus, would be considered a significant impact without mitigation.

Table 7
Worst Case Cancer Risk at Outdoor Receivers

Receiver	DPM Concentration	Unmitigated Cancer Risk (30 Years)	Unmitigated Cancer Risk (70 Years)	Significant Impact?
R1	0.547	226.75	291.48	Yes
R2	0.575	238.36	310.01	Yes
R3	0.529	219.29	285.21	Yes

Source: Health Risk Screening Letter, Ldn Consulting, Inc. (January 2022) (Appendix B)

Mitigation options are focused on the installation of HVAC systems interior to each unit that will filter out $PM_{2.5}$ and ultrafine DPM particles. The filtration systems are rated using Minimum Efficiency Reporting Values (MERVs). MERV 16 filtration on a supply ventilation system reduced $PM_{2.5}$ by 96-97% and ultrafine particles (UFP) by 97-99% relative to outdoor concentrations. Installation of MERV 16 filters would reduce interior exposure and relative cancer risk to less than significant. Table 8 shows the cancer risks with use of a MERV system. As shown, cancer risk would be reduced by less than 10 in one million with use of MERV 16 filtration systems.

With implementation of the **Mitigation Measure AQ-1**, potential impacts related to health risk would be reduced to **less than significant.**

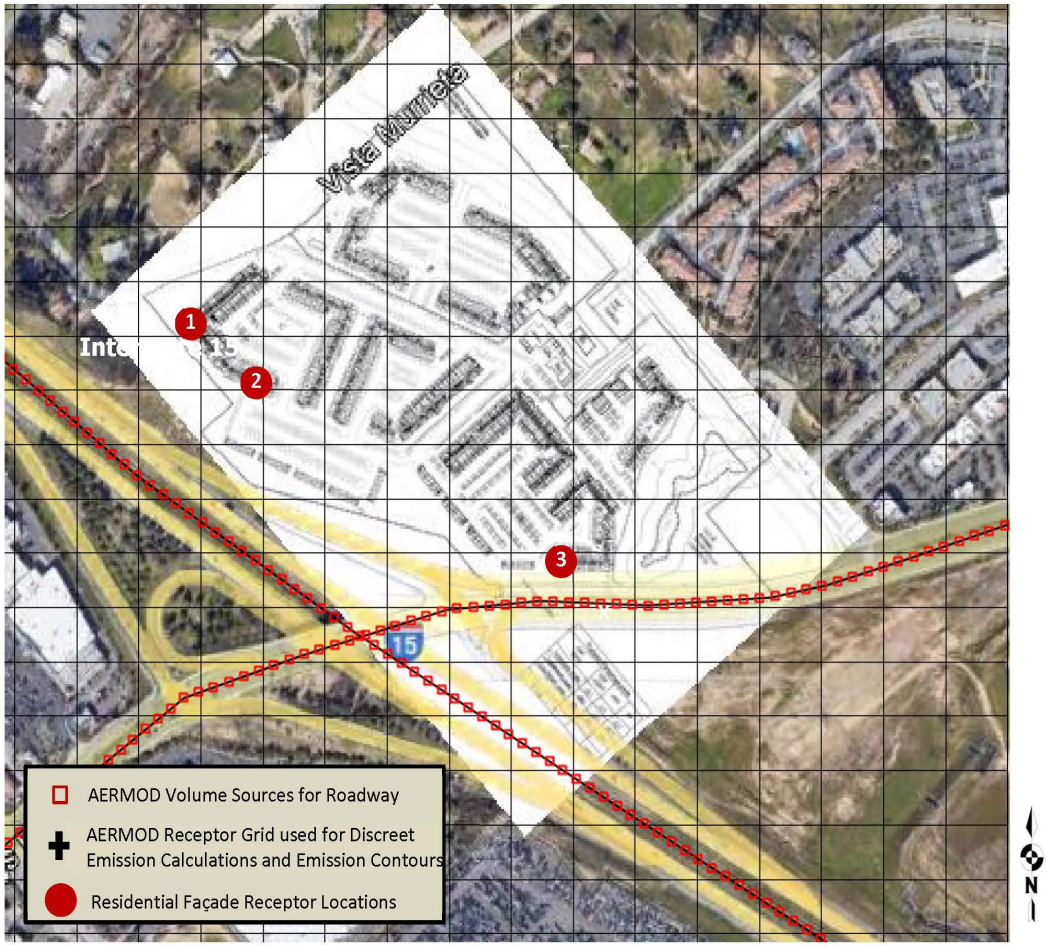


Figure 3— AERMOD Receiver Locations

Table 8
Mitigated Interior Cancer Risk

Receiver	DPM Concentration	Mitigated Cancer Risk (30 Years)	Mitigated Cancer Risk (70 Years)	Significant Impact?
R1	0.0164	6.80	8.58	No
R2	0.0173	7.15	9.30	No
R3	0.0159	6.58	8.56	No

Source: Health Risk Screening Letter, Ldn Consulting, Inc. (January 2022) (Appendix B)

MM AQ-1: Install MERV 16 or better filtration systems in each unit located within 500 feet of the nearest Interstate 15 travel lane.

Source: Birdseye Planning Group, *Air Quality/Greenhouse Gas Report for The Terraces Apartment Project*, September 2022.

Source: *The Terraces Apartments Health Risk Screening Letter*, Ldn Consulting, January 2022.

c) The nearest sensitive receptors to the project Site are the residences located adjacent to and east of the Site at the Walsh Center Drive/Sparkman Court intersection and north of the site along Vista Murrieta Road. As shown above, neither the total temporary construction nor operation emissions would exceed the SCAQMD thresholds. In addition to quantifying emissions, SCAQMD recommends performing a local CO hotspot analysis if an intersection meets one of the following criteria: 1) the intersection is at Level of Service (LOS) D or worse and where the project increases the volume to capacity ratio by 2 percent, or 2) the project decreases LOS at an intersection to D or worse. A CO hotspot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. Localized CO "hotspots" can occur at intersections with heavy peak hour traffic.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, California's allowable CO emissions standard is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, the introduction of cleaner fuels, and the implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. Based on the SCAQMD's 2003 AQMP and the *1992 Federal Attainment Plan for Carbon Monoxide* (1992 CO Plan), peak CO concentrations in the SCAB resulted from unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, of the 9.3 ppm 8-hour CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was

attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm resulted from ambient air measurements at the time the 2003 AQMP was prepared.

Similar methods are employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph) – or 24,000 vph where vertical and/or horizontal air does not mix – to generate a significant CO impact. The busiest intersection evaluated by SCAQMD was at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4 = 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).

The Traffic Impact Analysis (Appendix M) estimates that the segment of Murrieta Hot Springs Road between Interstate 15 and Interstate 215 would carry approximately 63,432 vehicles over a 24-hour period at build out (2028). These volumes include project trips. Assuming, 10% occur during the peak hour, volumes within this segment would be 6,343. The projected cumulative volumes, including project traffic, would not cause or contribute to traffic volumes at intersections in proximity to the project Site that could cause a CO hotspot. Impacts would be **less than significant.**

Source: Linscott, Law and Greenspan Traffic Engineers, *The Terraces Traffic Impact Assessmen*t, September 2022.

d) Potential sources of odor during construction activities include equipment exhaust and activities such as paving. The objectionable odors that may be produced during the construction process would occur periodically and end when construction is completed. The Project would provide 899 new apartment units. The Project would not develop new uses such as agricultural processing or manufacturing, that have the potential to generated odor. Operational emissions may be associated with periodic use of landscape equipment; however, these emissions would be short-term and not confined to one specific location. Odors would be **less than significant** per threshold (d).

Source: Birdseye Planning Group, *Air Quality/Greenhouse Gas Report for The Terraces Apartment Project,* September 2022.

Note that with implementation of **Mitigation Measure AQ-1**, all air quality impacts associated with the Project are anticipated to be less than significant. The following Standard Conditions are required by the City of Murrieta to be implemented by all projects to minimize air quality impacts and would be incorporated as conditions of approval.

SC AQ-2: Require the use of Tier 4 emissions standards or better for off-road diesel-powered construction equipment of 50 horsepower or greater. To ensure that Tier 4 construction equipment or better will be used during the proposed project's construction, SCAQMD staff recommends that the Lead Agency include this requirement in applicable bid documents, purchase orders, and contracts. Successful contractor(s) must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. Additionally, the Lead Agency should require periodic reporting and provision of written construction documents by construction contractor(s) to ensure compliance and conduct regular inspections to the maximum extent feasible to ensure compliance.

SC AQ-3: Require zero-emissions or near-zero emission on-road haul trucks such as heavy-duty trucks with natural gas engines that meet the CARB's adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. At a minimum, require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year trucks (e.g., material delivery trucks and soil import/export) that meet CARB's 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. The Lead Agency should include this requirement in applicable bid documents, purchase orders, and contracts. The construction contractor shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The City shall conduct regular inspections to the maximum extent feasible to ensure compliance.

SC AQ-4: All trucks hauling dirt, sand, soil or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

SC AQ-5: Enter into applicable bid documents, purchase orders, and contracts to notify all construction vendors, contractors, and/or haul truck operators that vehicle and construction equipment idling time will be limited to no longer than five minutes, consistent with the CARB's policy. For any idling that is expected to take longer than five minutes, the engine should be shut off. Notify construction vendors, contractors, and/or haul truck operators of these idling requirements at the time that the purchase order is issued and again when vehicles enter the proposed project site. To further ensure that drivers understand the vehicle idling requirement, post signs at the proposed project site, where appropriate, stating that idling longer than five minutes is not permitted.

SC AQ-6: The contractor shall adhere to applicable measures contained in Table 1 of Rule 403 including, but not limited to:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- All access points to the project site shall have track out devices installed.

The contractor shall ensure that traffic speeds on unpaved roads and project site areas are limited to 15 mph or less.

SC AQ-7: The project applicant shall require that all building structures meet or exceed 2022 Title 24, Part 6 Standards and meet Green Building Code Standards.

SC AQ-8: The project applicant shall require that all faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20% per SB X7-7 and CalGreen Standards.

SC AQ-9: The project applicant shall require that a water-efficient irrigation system be installed that conforms to the requirements of City codes.

SC AQ-10: The project applicant shall require that ENERGY STAR-compliant appliances are installed on-site.

SC AQ-11: Only "Low-Volatile Organic Compounds (VOC)" paints (no more than 50 gram/liter (g/L) of VOC) consistent with SCAQMD Rule 1113 shall be used.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
IV. <u>BIOLOGICAL RESOURCES</u> -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or	☐	☒	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. <u>BIOLOGICAL RESOURCES</u> -- Would the project:				
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?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local,	☐	☒	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact

IV. BIOLOGICAL RESOURCES --
Would the project:

regional, or state habitat conservation plan?

The material presented herein is based on the *Habitat Assessment and MSHCP Consistency Analysis for The Terraces Project,* prepared by ELMT Consulting, Inc., August 2022; and the *Jurisdictional Delineation for The Terraces Project*, prepared by ELMT Consulting, Inc., August 2022; *The Terraces Arborist Report*, prepared by Arborgate Consulting, Inc., January 2022/September 2022; and the *Determination of Biologically Equivalent or Superior Preservation for The Terraces Project, Murrieta, California,* prepared by ELMT Consulting, Inc., December 2022. The reports are provided as Appendices C, D, E and F, respectively.

a) The project Site is ranges in elevation from 1,120 to 1,190 feet above mean sea level. On-site topography consists of rolling ridges, and valleys, with small ridgelines that historically supported a few residential units. Based on the NRCS USDA Web Soil Survey, the project Site is underlain by Arlington and Greenfield fine sandy loam (8 to 15 percent slopes), Greenfield sandy loam, eroded (2 to 8 percent slopes), Hanford coarse sandy loam (2 to 8 percent slopes), and Ramona and Buren sandy loam (15 to 25 percent slopes). Refer to Exhibit 4, *Soils*, in Attachment A. The majority of the soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities, disking/mowing, weed abatement) and on-site surrounding development.

The project Site is located in an area that consist of a mosaic of residential, commercial, institutional, and transportation related developments. At present, the Site is bordered by rural residential developments to the north, multifamily homes and rural residential developments to the east, Murrieta Hot Springs Road and undeveloped land to the south, and Interstate 15 and commercial developments to the west. There are existing residential remnant foundations on the northern boundary of the project site, undeveloped land that has been routinely disked/mowed and subject to off-road vehicle activities, and large stands of eucalyptus trees and ornamental trees onsite. There is an earthen storm drain on the southeast corner of the Site that receives flows via three storm drain outlets that all flow into a concrete headwall that was constructed to convey storm flows from the site and under Murrieta Hot Springs Road.

Vegetation. The Site primarily consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances. The project Site has been subjected to routine weed

abatement activities, off-road vehicle use, and additional disturbance associated with surrounding development. The project Site supports three (3) plant communities, buckwheat scurb, southern willow scrub/eucalyptus stand, and eucalyptus stand. In addition, the project site supports three (3) land cover types that would be classified as ornamental, disturbed and developed.

Buckwheat Scrub. The buckwheat scrub plant community is located in small patches on the southern half of the project site. This plant community primarily consist of California buckwheat (*Erigonum fasciculatum*), and has been heavily disturbed from historic agricultural activities and routine weed abatement activities. This plant community primarily occurs on the slopes of the rolling slopes onsite. Other common plant species within this plant community include brittlebush (*Encelia farinosa*), coyote bush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), cudweed aster (*Lessingia filaginifolia*), deerweed (*Acmispon glaber*),western ragweed (*Ambrosia psilostachya*).

Southern Willow Scrub/Eucalyptus Stand. The southern willow scrub/eucalyptus stand plant community occurs on the southeastern corner of the site in association with the drainage. This plant community is heavily mixed with native riparian plant species (mainly willows) and eucalyptus trees. Common plant species within this plant community include arroyo willow (*Salix lasiolepis*), black willow (*Salix gooddingii*), golden leaf willow (*Salix lucida*), eucalyptus (*Eucalyptus sp*). fig (*Ficus carica*), Mexican fan palm (*Washingtonia robusta*), salt cedar (*Tamarix ramosissima*), cottonwood (*Popolus fremontii*). This riparian plant community is heavily degraded by the invasion of eucalyptus.

Eucalyptus Stand. The several stands of eucalyptus are primarily found on the southeast corner of the project site. These large stands are dominated by eucalyptus with minimal vegetation in the understory and can be seen in historic aerials dating back to the early 1960s.

Ornamental. Ornamental, or landscaped/planted trees are primarily found on the northeast and northwest corners of the project site in association with historic residential developments. Plant species associated with the onsite residential developments include Peruvian pepper (*Schinus molle*), italian cypress (*Cupressus sempervirens*), silk oak (*Grevillea robusta*), pine (*Pinus sp.*) and eucalyptus.

Disturbed. The majority of the project site supports a disturbed land cover type that has been subject to routine disturbances from historic agricultural activities, weed abatement (i.e., disking/mowing), and unauthorized off-road vehicle use. The disturbed areas onsite are dominated by early successional and non-native/ruderal plant species. Common plant species found within the disturbed areas include non-native grasses such as bromes (*Bromus* spp.), oats (*Avena* spp.), prickly lettuce (*Lactuca serriola*), Russian thistle (*Salsola tragus*),Mediterannean mustard (*Hirschfeldia incana*), tacolote (*Centaurea melitensis*), and morning glory (*Calystegia sp*).

Developed. Developed areas within the project site generally consists of paved, impervious surfaces, and remnant residential structures. These areas are generally found on the northern boundary of the project site where the residential structures were previously located, and on the southern boundary of the project site in association with Murrieta Hot Springs Road.

Wildlife. Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project Site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

Fish. The MSHCP does not identify any covered or special-status fish species as potentially occurring within the project site. Further, no fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the site. Therefore, no fish are expected to occur and are presumed absent.

Amphibians. The MSHCP does not identify any covered or special-status amphibian species as potentially occurring within the project site. Further, no amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the site. While the drainage feature on the southern boundary of the project site supported minimal water during the site visit from urban runoff, the quality of the habitat and types of plant species within the drainage do not provide suitable habitat for common amphibian species known to occur in the area. Therefore, no amphibians are expected to occur.

Reptiles. The MSHCP does not identify any covered or special-status reptilian species as potentially occurring within the project site. The site provides a limited amount of habitat for reptile species adapted to a high degree of human disturbance associated with the on-site weed abatement activities and development. No reptilian species were observed during the field investigation. Common reptilian species that could be expected to occur on-site include Great Basin fence lizard (*Sceloporus occidentalis longipes*) and common sideblotched lizard (*Uta stansburiana elegans*). Due to the high level of anthropogenic disturbances and surrounding development, no special-status reptilian species are expected to occur within project site.

Birds. The project site provides marginal foraging and nesting habitat for bird species adapted to a high degree of routine human disturbance. Bird species detected during the field survey include house finch (*Haemorhouse mexicanus*), mourning dove (*Zenaida macroura*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), American crow (*Corvus brachyrhynchoCalypte anna*), and Cassin's kingbird (*Tyrannus vociferans*).

Mammals. The MSHCP does not identify any covered or special-status mammalian species as potentially occurring within the project site. The only mammalian species detected during the field investigation was pocket gopher (*Thomomys bottae*). Common mammalian species that could be expected to occur include coyote (*Canis latrans*), possum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). Due to the nature and frequency of routine anthropogenic disturbances associated with adjacent roadways and development, the project site has the potential to supported foraging habitat for common bat species, but is not expected to provide suitable roosting habitats.

No wildlife species included in the MSHCP will be impacted by implementation of the proposed project.

Nesting Birds and Raptors. No active nests or birds displaying nesting behavior were observed during the field survey, which was conducted on August 18, 2021, during breeding season. Although subjected to routine disturbance, the ornamental vegetation found on-site has the potential to provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments. (*Charadrius vociferans*). No raptors are expected to nest on-site due to lack of suitable nesting opportunities.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction.

> **MM BIO-1:** 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. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

Special-Status Biological Resources. The CNDDB was queried for reported locations of special-status plant and wildlife species as well as natural communities of special concern in the Murrieta USGS 7.5-minute quadrangle. A search of published records within this quadrangle was conducted using the CNDDB Rarefind 5 online software and the CDFW BIOS database and the CNPS Inventory of Rare and Endangered Plants of California that supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The field investigation evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified forty-six (46) special-status plant species, sixty-one (61) special-status wildlife species, and four (4) special-status plant communities as having potential to occur within the Murrieta quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project boundaries based on habitat requirements, availability and quality of suitable habitat, and known distributions.

Special-Status Plants. According to the CNDDB and CNPS, forty-six (46) special-status plant species have been recorded in the Murrieta quadrangle. No special-status plants were observed on the project site during the field investigation. The project site is heavily disturbed and no longer supports native plant communities that have the potential to provide suitable habitat for special-status plant species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined no special-status plant species have potential to occur on-site due to the lack of native habitats, historic agricultural activities, and routine on-site disturbances. All special-status plant species are presumed absent.

Special-Status Wildlife. According to the CNDDB, sixty-one (61) special-status wildlife species have been reported in the Murrieta quadrangle. No special-status wildlife species were observed on the project site during the field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site has a moderate potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), and California horned lark (*Eremophila alpestris actia*). All remaining special-status wildlife species were presumed to be absent from the project site. To ensure no impacts to Coopers' hawk, sharp-shinned hawk, and California horned lark do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey as required per MM BIO-1, impacts to Coopers' hawk, sharp-shinned hawk, and California horned lark will be less than significant and no mitigation will be required.

Special-Status Plant Communities. The CNDDB lists four (4) special-status habitats as being identified within the Murrieta quadrangle: Southern Coast Live Oak Riparian Forest, Southern Interior Basalt Flow Vernal Pool, Southern Sycamore Alder Riparian Woodland, and Valley Needlegrass Grassland. No CDFW special-status plant communities occur within the

*boundaries of the project area. Therefore, no special-status plant communities will be impacted by project implementation.

Special-Status Biological Resources. The CNDDB was queried for reported locations of special-status plant and wildlife species as well as natural communities of special concern in the Murrieta USGS 7.5-minute quadrangle. A search of published records within this quadrangle was conducted using the CNDDB Rarefind 5 online software and the CDFW BIOS database and the CNPS Inventory of Rare and Endangered Plants of California that supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The field investigation evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified forty-six (46) special-status plant species, sixty-one (61) special-status wildlife species, and four (4) special-status plant communities as having potential to occur within the Murrieta quadrangle. Special-status plant and wildlife species were evaluated for their potential to occur within the project boundaries based on habitat requirements, availability and quality of suitable habitat; and known distributions.
Special-Status Plants. According to the CNDDB and CNPS, forty-six (46) special-status plant species have been recorded in the Murrieta quadrangle. No special-status plants were observed on the project site during the field investigation. The project site is heavily disturbed and no longer supports native plant communities that have the potential to provide suitable habitat for special-status plant species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined no special-status plant species have potential to occur on-site due to the lack of native habitats, historic agricultural activities, and routine on-site disturbances. All special-status plant species are presumed absent.

Special-Status Wildlife. According to the CNDDB, sixty-one (61) special-status wildlife species have been reported in the Murrieta quadrangle. No special-status wildlife species were observed on the project site during the field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site has a moderate potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), and California horned lark (*Eremophila alpestris actia*). All remaining special-status wildlife species were presumed to be absent from the project site.
To ensure no impacts to Coopers' hawk, sharp-shinned hawk, and California horned lark do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey as required per MM BIO-1, shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey, impacts to Coopers' hawk, sharp-shinned hawk, and California horned lark will be less than significant and no mitigation will be required.

Special-Status Plant Communities
The CNDDB lists four (4) special-status habitats as being identified within the Murrieta quadrangle: Southern Coast Live Oak Riparian Forest, Southern Interior Basalt Flow Vernal

Pool, Southern Sycamore Alder Riparian Woodland, and Valley Needlegrass Grassland. No CDFW special-status plant communities occur within the boundaries of the project area. Therefore, no special-status plant communities will be impacted by project implementation.

Critical Habitat. Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat.

The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project Site is not located with federally designated Critical Habitat. The nearest designated Critical Habitat is located approximately 3.5 miles north of the site for California gnatcatcher (*Polioptila californica*), and 3 miles west of the project for spreading navarretia (*Navarretia fossalis*). Therefore, the loss or adverse modification of Critical Habitat will not occur as a result of the proposed project and consultation with the USFWS will not be required for implementation of the proposed project.

Stephen's Kangaroo Rat Habitat Conservation Plan. Separate from the consistency review against the policies of the MSHCP, Riverside County established a boundary in 1996 for protecting the Stephens' kangaroo rat (*Dipodomys stephensi*), a federally endangered and state threatened species. The Stephens' kangaroo rat is protected under the Stephens' Kangaroo Rat Habitat Conservation Plan (County Ordinance No. 663.10; SKR HCP). As described in the MSHCP Implementation Agreement, a Section 10(a) Permit, and California Fish and Game Code Section 2081 Management Authorization were issued to the Riverside County Habitat Conservation Agency (RCHCA)for the Long-Term SKR HCP and was approved by the USFWS and CDFW in August 1990 (RCHCA 1996). Relevant terms of the SKR HCP have been incorporated into the MSHCP and its Implementation Agreement. The SKR HCP will continue to be implemented as a separate HCP; however, to provide the greatest conservation for the largest number of Covered Species, the Core Reserves established by the SKR HCP are managed as part of the MSHCP Conservation Area consistent with the SKR HCP. Actions shall not be taken as part of the implementation of the SKR HCP that will significantly affect other

Covered Species. Take of Stephens' kangaroo rat outside of the boundaries but within the MSHCP area is authorized under the MSHCP and the associated permits.
The project Site is located within the Mitigation Fee Area of the SKR HCP. Therefore, the applicant will be required to pay the SKR HCP Mitigation Fee prior to development of the project Site. With payment of SKR HCP mitigation fees, impacts under this threshold would be **less than significant.**

Source: *Habitat Assessment and MSHCP Consistency Analysis for The Terraces Project* prepared by ELMT Consulting, Inc., August 2022.

b and c) A wetland delineation was performed for the proposed project by ELMT Consulting, Inc., September 2021 (Appendix C). The jurisdictional delineation documents the regulatory authority of the U.S. Army Corps of Engineers (Corps), the Regional Water Quality Control Board (Regional Board), and the California Department of Fish and Wildlife (CDFW) pursuant to Section 401 and 404 of the Federal Clean Water Act (CWA), the California Porter-Cologne Water Quality Control Act, and Sections 1600 *et. seq.* of the California Fish and Game Code.

Two unnamed drainage features (Drainages 1 and 2) were observed within the boundaries of the project Site. A third drainage feature is located north of the site and crosses old Monroe Avenue (Drainage 3). Drainage 1 generally flows in an east to west direction on the southeast corner of the project Site, and only conveys surface flows in direct response to precipitation and urban runoff. Within Drainage 1, a small wetland was observed at the easternmost portion of the drainage that is subject to a continual water source from urban runoff. Drainage 2 is an ephemeral feature that generally flows in an east to west direction in the middle of the northern portion of the project site and only conveys flows in direct response to precipitation. Drainage 3 is located approximately 440 feet north of the Site and crosses old Monroe Avenue at grade via an existing wash. These drainage features eventually discharge into Murrieta Creek, which exhibits a surface hydrologic connection to the Santa Margarita River (Relatively Permanent Water) and ultimately the Pacific Ocean (Traditional Navigable Water). Therefore, Drainages 1, 2 and 3qualify as waters of the United States and fall under regulatory authority of the Corps, Regional Board, and CDFW. Placement of fill and/ or alteration within the jurisdictional areas is subject to Corps, Regional Board, and CDFW jurisdiction and approval. Note that Drainage features 1 and 2 will be affected by project improvements. Drainage feature 3 will be avoided using horizontal directional drilling to install the 18" water main. No impact to Drainage feature 3 will occur. Table 9 identifies the on-site jurisdictional features including the total acreage of jurisdiction for each regulatory agency within the boundaries of the project site and including Drainage feature 3 located north of the site.

Table 9
Jurisdictional Area

Jurisdictional Feature	Corps/Regional Board Jurisdiction	CDFW Jurisdictional Streambed/Riparian Habitat
	On-Site Jurisdiction Acreage (Linear Feet)	On-Site Jurisdiction Acreage (Linear Feet)

Drainage 1	0.27 (570)	0.73 (570)
Wetland 1 (part of Drainage 1)	0.05	0.05
Drainage 2	0.06 (795)	0.06 (795)
Drainage 3	0.03 (50)	0.03 (50)
Total	**0.41 (1,415)**	**0.84 (1,365)**

The proposed project would remove all of Drainage 2, or a total of 0.06 acres and 795 linear feet of US Army Corps of Engineers/Regional Board non-wetland waters and 0.06 acres and 795 linear feet of CDFW jurisdictional streambed/riparian habitat. The Project would avoid impacts to wetland features and non-wetland jurisdictional waters associated with Drainage 1 and all of Drainage 3. With implementation of **Mitigation Measure BIO-2**, impacts to non-wetland waters of the US and CDFW riparian habitat would be reduced to **less than significant.**

> **MM BIO-2.** The applicant shall purchase mitigation credits through the Riverpark Mitigation Bank or similar conservation area at a ratio of 3:1 for a total of 0.18 acres to compensate for the loss of non-wetland jurisdictional resources.

The project Applicant would be required to obtain the following regulatory approvals prior to impacts occurring within the identified jurisdictional areas: Corps CWA Section 404 Permit; Regional Board CWA Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement (SAA).

With the purchase of mitigation credits, impacts to the on-site jurisdictional features would be **less than significant.**

Source: *Jurisdictional Delineation for The Terraces Project* prepared by ELMT Consulting, Inc., August 2022.

d) Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.
The project Site has not been identified as occurring in a wildlife corridor or linkage. The proposed project will be confined to existing areas that have been heavily disturbed and are isolated from regional wildlife corridors and linkages. In addition, there are no useful patches of steppingstone habitat (natural areas) within or connecting the site to a recognized wildlife corridor or linkage. As such, implementation of the proposed Project is not expected to impact

wildlife movement opportunities. **No impact** to wildlife movement corridors would occur with project implementation.
Source: *Habitat Assessment and MSHCP Consistency Analysis for The Terraces Project* prepared by ELMT Consulting, Inc., August 2022.

e) The City of Murrieta Municipal Code Section 16.42 provides regulations for the protection, preservation, and maintenance of significant tree resources and establishes minimum mitigation measures for trees removed as a result of new development. Section 16.42.050 defines trees subject to protection as mature native oaks, mature native tree, mature tree, historically significant tree or any tree required to be planted or preserved as environmental mitigation or condition of approval for a discretionary project. Section 16.42.095 defines protected tree replacement standards. An Arborist Report was prepared for the project Site to inventory and characterize each tree on the site (Appendix E).

As discussed in the report, a total of 298 trees met the definition of trees requiring inspection per Section 16.42 of the Municipal Code. These trees were identified and characterized. There are no mature native oaks or other mature native trees except native willows located within the jurisdictional area (Drainage 1) at the southeast corner of the Site. A few Freemont cottonwoods, one white alder, and one Mexican elderberry are located on the site but are in poor condition. The willows located in the upper portion of the jurisdictional area near the outfall adjacent to Sparkman Court, are crowded, broken and fallen. They are mixed mostly with red gum eucalyptus trees. Other portions of the site are very dry and the vast majority of trees are non-native pines and other drought tolerant species including California peppers.

Based on the results of the arborist survey, no trees were identified that warrant protection per Section 16.42 of the Municipal Code. No trees are recommended for transplanting, storage and replanting. The only trees that would remain are those within the jurisdictional area. These trees are not protected per the Municipal Code but because they are in the jurisdiction area, impacts would be avoided. While no protected trees would be removed, a **less than significant** impact to protected tree species would occur under this threshold.

Source: *The Terraces Arborist Report*, prepared by Arborgate Consulting, Inc., August 2022. This report is provided as Appendix E.

f) The project Site is located within the Southwest Area Plan of the MSHCP but are not located within any Criteria Cells or MSHCP Conservation Areas. Additionally, only the western portion of the project Site is located within the designated survey area for burrowing owl as depicted. The eastern portion of the Site is not located within any designated species survey areas.

- Amphibian Not in an amphibian survey area;
- Burrowing Owls Burrowing Owl Survey Area (only western parcel);
- Criteria Area Species Not in a criteria area species survey area;
- Mammals Not in a mammal survey area; and
- Narrow Endemic Plants Not in a narrow endemic plant survey area.

Since the City is a permittee under the MSHCP and, while the project is not specifically identified as a Covered Activity under Section 7.1 of the MSHCP, public and private development that are outside of Criteria Areas and Public/Quasi-Public (PQP) Lands are permitted under the MSHCP, subject to consistency with MSHCP policies that apply to area outside of Criteria Areas. As such, to achieve coverage, the Project must be consistent with the following policies of the MSHCP:

- The policies for the protection of species associated with Riparian/Riverine areas and vernal pools as set forth in Section 6.1.2 of the MSHCP;

- The policies for the protection of Narrow Endemic Plant Species as set forth in Section 6.1.3 of the MSHCP;

- The requirements for conducting additional surveys as set forth in Section 6.3.2 of the MSHCP;

- Guidelines pertaining to the Urban/Wildlands Interface intended to address indirect effects associated with locating Development in proximity to the MSHCP Conservation Area as detailed in Section 6.1.4 of the MSHCP.

Riparian/Riverine Areas and Vernal Pools
The MSHCP requires that an assessment be completed if impacts to riparian/riverine areas and vernal pools could occur from construction of the proposed project. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*.

Riparian/Riverine Areas. As identified in Section 6.1.2 of the MSHCP, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools,* riparian/riverine areas are defined as areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed or special-status water-dependent fish, amphibian, avian, and plant species. If impacts to riparian/riverine habitat cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be developed to address the replacement of lost functions of habitats in regard to the listed species. This assessment is independent from considerations given to "waters of the U.S." and "waters of the State" under the CWA and the California Fish and Game Code.

Based on the results of a Delineation of State and Federal Jurisdictional Waters Report (ELMT, August 2022), Drainages 1 and 2 would qualify as riparian/riverine habitat under the MSHCP. Activities impacting these drainage features required the preparation and approval of a DBESP for the loss of riparian/riverine habitat from development of the proposed project to be

consistent with Section 6.1.2 of the MSHCP. The DEBESP, prepared by ELMT Consulting, Inc., (December 2022), is provided herein as Appendix D. As stated, no impact to Drainage 3 would occur with the proposed project as described herein and within the DBESP.

The proposed project design will result in permanent impacts of 0.06-acre (795 linear feet) of riparian/riverine habitat within Drainage 2. No impacts to Drainages 1 or 3 are expected to occur. To offset impacts to 0.06-acre of riparian/riverine habitat, the applicant proposes to mitigate offsite through the purchase of mitigation credits through the Riverpark Mitigation Bank at a ratio of 3:1. The applicant will be responsible for the purchase of 0.18 acre of mitigation credits to compensate for the loss of riparian/riverine habitat. This is described above in the discussion of impacts to non-wetland jurisdictional features under thresholds b and c. As stated, approximately 0.57 acres comprising Drainage 1 will be avoided by establishing a 50-foot buffer between the resource and the nearest project disturbance. Implementation of **Mitigation Measure BIO-3** would require a deed restriction, conservation easement, or other appropriate mechanism be attached to the parcel comprising Drainage 1 to ensure long-term conservation. With implementation of **Mitigation Measures BIO-2 and BIO-3** would reduce potential impacts to riparian/riverine areas to **less than significant.**

> **MM BIO-3:** Applicant shall provide evidence demonstrating that a deed restriction, conservation easement or appropriate mechanism has been attached to the parcel comprising Drainage 1 prior to issuance of a grading permit.

Vernal Pools and Fairy Shrimp Habitat. Vernal pools are seasonally inundated, ponded areas that only form in regions where specialized soil and climatic conditions exist. During fall and winter rains typical of Mediterranean climates, water collects in shallow depressions where downward percolation of water is prevented by the presence of a hard pan or clay pan layer (duripan) below the soil surface. Later in the spring when rains decrease and the weather warms, the water evaporates and the pools generally disappear by May. The shallow depressions remain relatively dry until late fall and early winter with the advent of greater precipitation and cooler temperatures. Vernal pools provide unusual "flood and drought" habitat conditions to which certain plant and wildlife species have specifically adapted as well as invertebrate species such as fairy shrimp.

A review of recent and historic aerial photographs (1985-2020) of the project site did not provide visual evidence of an astatic or vernal pool conditions within the project site. No ponding was observed, further supporting the fact that the drainage patterns currently occurring on the project site do not follow hydrologic regimes needed for vernal pools. From this review of historic aerial photographs and observations during the field investigations (August 18, 2021), it can be concluded that there is no indication of vernal pools or suitable fairy shrimp habitat occurring within the proposed project site. Therefore, the project is consistent with Section 6.1.2 of the MSHCP.

Narrow Endemic Plant Species. Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, states that the MSHCP database does not provide sufficient detail to determine the

extent of the presence/distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Additional surveys may be needed to gather information to determine the presence/absence of these species to ensure that appropriate conservation of these species occurs. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the project site is not located within the designated survey area for Narrow Endemic Plant Species. Through the field investigation, it was determined that the project Site does not provide suitable habitat for any of the Narrow Endemic Plant Species listed under Section 6.1.3 of the MSHCP; therefore, the project is consistent with Section 6.1.3 of the MSHCP. No additional surveys or analysis is required.

Additional Survey Needs and Procedures. In accordance with Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, additional surveys may be needed for certain species in order to achieve coverage for these species. The query of the RCA MSHCP Information Map and review of the MSHCP determined that the western portion of the project site is located within the designated survey area for burrowing owl. No other special-status wildlife species surveys were identified.

Burrowing Owl. Burrowing owl is currently designated as a California Species of Special Concern. The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with level to gently-sloping areas characterized by open vegetation and bare ground.

The western burrowing owl (*A.c. hypugaea*), which occurs throughout the western United States including California, rarely digs its own burrows and is instead dependent upon the presence of burrowing mammals (i.e., California ground squirrels, coyotes, and badgers) whose burrows are often used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. They also require low growth or open vegetation allowing line-of-sight observation of the surrounding habitat to forage and watch for predators. In California, the burrowing owl breeding season extends from the beginning of February through the end of August.

Under the MSHCP burrowing owl is considered an adequately conserved covered species that may still require focused surveys in certain areas as designated in Figure 6-4 of the MSHCP. The project site occurs within the MSHCP burrowing owl survey area and a habitat assessment was conducted for the species to ensure compliance with MSHCP guidelines for the species.

A systematic search of the project Site was performed and no burrowing owls or sign (i.e., pellets, feathers, castings, or whitewash) were observed during the field investigation. Portions of the project site are vegetated with a variety of low-growing plant species that allow for minimal line-of-sight observation favored by burrowing owls. However, no small mammal

burrows that have the potential to provide suitable burrowing owl nesting habitat (>4 inches in diameter) were observed within the boundaries of the site. Additionally, the Site supports and is bordered by tall trees and power poles that provide perching opportunities for large raptors (i.e., red-tailed hawk) that can prey on burrowing owls. Because no appropriate burrows or burrowing owl habitat was found, focused burrowing owl surveys are not required to demonstrate MSHCP consistency. However, implementation of **Mitigation Measure BIO-4** and **BIO-5** is recommended to avoid potential impacts to during project construction.

> **MM BIO-4:** 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-5:** 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.

With implementation of **Mitigation Measure BIO-4 and BIO-5**, potential impacts to burrowing owl would be **less than significant.**

Urban/Wildlands Interface Guidelines. Section 6.1.4 of the MSHCP, *Guidelines Pertaining to Urban/Wildlands Interface,* is intended to address indirect effects associated with development in proximity to MSHCP Conservation Areas. The Urban/Wildlife Interface Guidelines are intended to ensure that indirect project-related impacts to the MSHCP Conservation Area, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized. The project Site is not located within or immediately adjacent to any Criteria Cells, corridors, or linkages. The urban/Wildlands Interface Guidelines do not apply to this project; therefore, the Project is consistent with Section 6.1.4 of the MSHCP. However, implementation of **Standard Condition BIO-6** is included herein as a condition of approval.

> **SC BIO-6:** The Applicant shall comply with the following:
>
> - Drainages – Proposed developments in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions.
>
> - Toxics – Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall

incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area.

- Lighting – Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.

- Noise – Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards.

- Invasives – The project shall avoid the use of invasive species (MSHCP Section 6.1.4 – Table 6-2) for landscaping portions of development that are adjacent to the MSHCP Conservation Area.

- Barriers – Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area.

- Grading/Land Development – Manufactured slopes associated with proposed site development shall not extend into the MSHCP Conservation Area.

Source: *Habitat Assessment and MSHCP Consistency Analysis for The Terraces Project* prepared by ELMT Consulting, Inc., August 2022
Source: ELMT Consulting, Inc., *Determination of Biologically Equivalent or Superior Preservation for The Terraces Project, Murrieta, California,* December, 2022

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
V. CULTURAL RESOURCES -- would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES -- would the project:				
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The material presented herein is based on the Phase I Cultural Resources Report, prepared for *The Terraces Project,* Anza Resource Consultants, Inc., July 2022. The report is provided as Appendix G.

a-b) This discussion addresses the criterion above for both historic and cultural resources.

Historic Resources. Anza requested a records search of the California Historical Resources Information System (CHRIS) at the Eastern Information Center (EIC) located at University of California, Riverside. The search was requested to identify previous cultural resources studies and previously recorded cultural resources within a 0.5-mile radius of the project Area of Potential Effects (APE). The APE is defined in 36 CFR 800.16(d) as the "geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such property exists. For this evaluation, the APE is defined as the entire project site. The Eastern Information Center (EIC) conducted the records search on October 29, 2021. The California Historic Resource Inventory System (CHRIS) search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

The EIC records search identified 48 cultural resources studies that were conducted within a 0.5-mile radius of the project APE. Six of the studies (RI-02015, RI-02877, RI-03896, RI-07372, RI-07404, and RI-10133) included all or portions of the project APE. None of studies identified cultural resources within or adjacent to the project APE. Ten cultural resources were identified within a 0.5-mile radius of the project APE. None of these resources is within the project APE. Seven of the ten resources are historic built environment resources, one is a historic refuse

scatter, and two of the resources are prehistoric in origin. There are four remnant concrete driveways and ten building foundations on the central and northern portions of the APE, including five slab foundations and five stem-wall foundations. These are not considered historic built environment resources; thus, none would be affected by the project.

Cultural Resources. On November 11, 2021, Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the approximately 38.7 gross (31.39 net) project APE. The pedestrian survey consisted of walking northeast-southwest trending transects spaced no more than 10-15 meters apart, generally following elevation contours. All areas of exposed ground surface were examined for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools, ceramics), historic debris (e.g., metal, glass, ceramics), or soil discoloration that might indicate the presence of a cultural midden. No cultural resources or evidence of cultural resources were found on-site.

Native American Coordination. A review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) was requested on September 15, 2021. In anticipation of the NAHC response, letters were mailed on September 17, 2021, to 20 Native American contacts describing the project and asking if they had knowledge regarding cultural resources of Native American origin within or near the project APE (Appendix B of Appendix G).

The NAHC sent a response on October 20, 2021, stating that a search of the SLF was completed with positive results (i.e., sacred lands or resources important to Native Americans are recorded within the vicinity of the project APE; Appendix B of Appendix D). The NAHC provided a list of Native American contacts that may have knowledge regarding Native American cultural resources within or near the project APE.

On September 23, 2021, Jill McCormick, Historic Preservation Officer of the Quechan Indian Tribe, responded via email stating that Quechan has no comment on this project and defers to more local tribes.

The Rincon Band of Luiseño Indians responded in a letter delivered via email on November 3, 2021, stating that the project site is within the traditional Luiseño use area and of interest to the Rincon Band, but they have no knowledge of resources in the project vicinity. The Rincon Band asked that an archaeological records search be conducted, and a copy of the report provided to the Rincon Band. The Rincon Band further recommended that the Pechanga Band of Luiseño Indians be contacted. Cultural Coordinator Paul Macarro was e-mailed on January 6, 2022, to follow-up the letter and requesting comment. To date, no responses have been received from the Pechanga Band of Luiseño Indians; however, based on previous experience with projects located proximal to the site, it is understood that the APE is within proximity to resources important to the Pechanga.

Based on the absence of recorded prehistoric resources less than 0.5-mile from the project APE and negative results of the current and previous surveys, the archaeological sensitivity of the project APE is considered low. Thus, no impact to historic properties or cultural resources is

anticipated and no further cultural resources study is recommended. However, standard mitigation measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

> **MM CUL-1:** If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Historic Preservation Professional Qualification Standards for archaeology (National Park Service 1997) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA or Section 106, additional work such as data recovery excavation may be warranted.

No impact to historic resources would occur with project implementation. With implementation of **Mitigation Measures CUL-1 and CUL-2**, potential impacts to cultural resources would be **less than significant**.

c) There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. If human remains are discovered during any phase of construction, including disarticulated or cremated remains, all ground-disturbing activities must cease within 100 feet of the remains and the County Coroner and the Lead Agency (City of Murrieta) must be immediately notified.

California State Health and Safety Code §7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and Public Resources Code (PRC) §5097.98. If the County Coroner determines that the remains are Native American, the NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project contractor shall implement approved mitigation measure(s), to be verified by the Lead Agency, prior to resuming ground-disturbing activities within 100 feet of where the remains were discovered. The proposed project grading impact to unanticipated discovery of human remains would be **less than significant** with **Mitigation Measure CUL-2.**

> **MM CUL-2:** If human remains are found during ground disturbing activities, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Source: *The Terraces Phase I Cultural Resources Report,* Anza Resource Consultants, Inc., July 2022.

Note that with implementation of **Mitigation Measures CUL-1 and CUL-2**, cultural resource impacts associated with the project are anticipated to be less than significant. The following mitigation measures are required by the City of Murrieta as Standard Conditions to be implemented by all projects to minimize cultural resource impacts and would be incorporated as conditions of approval.

SC CUL-3: If, during earthwork and ground-disturbing activities, unique cultural resources, as that term is defined in PRC para. 21083,2(g), or an historic resource, as that term is defined in PRC para. 21084.1, are discovered and the resources were not assessed or addressed by the prior archaeological investigations or environmental assessment conducted prior to project approval, the following procedures shall be implemented:

a) All earthwork and ground-disturbing activities within 100 feet ("buffer area") of the discovery will be halted while the Project Archaeologist makes an initial assessment of the significance of the discovery.

b) Once the Project Archaeologist makes the initial assessment, the City Planner will convene a meeting with the Project Applicant, Project Archaeologist, and tribe(s) to discuss the significance of the discovery and what mitigation measures are feasible in accordance with examples in PRC para. 21083.2(b). If the parties cannot reach agreement on a feasible mitigation measure, the City Planner with the assistance of a third-party archaeologist will make a final determination on the appropriate mitigation and treatment of the resources; if there are disagreements with the determination, a Project Issue Resolution (PIR) meeting will be facilitated.

c) Earthwork and ground-disturbing activities will not resume within the buffer area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation and treatment of the resources. Earthwork and ground-disturbing activities will be allowed to continue outside of the buffer area and will be monitored by archaeological and tribal monitor(s).

d) Treatment and avoidance of any newly discovered resources will be consistent with these mitigation measures and the Cultural Resources Monitoring Plan as required by MM CUL-3.

SC CUL-4: At least thirty (30) days prior to submittal of the final grading plans to the City, the Project Applicant, Project Archaeologist, City planner and tribe(s) will meet and develop a Cultural Resources Monitoring Plan ("CRMP) for the treatment and mitigation of Native American cultural resources discovered during Project development. Treatment of the newly discovered resource(s) will be consistent with the terms and provisions of the CRMP and may be amended by the parties as agreed upon. Prior to its finalization, the Project Archaeologist will circulate the draft CRMP to the City Planner and any tribe(s) requesting monitoring of the Project for review

and comment. The final document will include information provided by the tribe(s) concerning tribal methods and practices and other appropriate issues that may be relevant to culturally appropriate treatment of the resources. The involved parties will make good-faith efforts to incorporate the Tribe's comments. The City Planner will have final review and approval authority for the CRMP. If there are disagreements with the approval, a Project Issue Resolution (PIR) meeting will be facilitated. All parties are required to withhold public disclosure of information related to the treatment and mitigation of cultural resource(s) pursuant to the specific exemption set forth in CGC para. 6254(r).

The CRMP will include/address each of the following:

a) The parties entering into the CRMP, and their contact information.

b) The Project schedule including the frequency and location of monitoring of earthwork and ground disturbing activities and details regarding what types of construction-related activities will require monitoring.

SC CUL-5: Should any subsurface cultural 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 shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the City's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act. Measures in accordance with SC CUL-3 and SC CUL-4 shall be followed if the accidentally exposed cultural material is also a Tribal Cultural Resource.

SC CUL-6: On-Site Preservation/Reburial Location for Sensitive Native American Resources. All Native American sensitive resources including, without limitation, ceremonial items, sacred items, and grave goods as those same are identified by the tribe(s) during Project earthwork and ground-disturbing activities, will be reburied on the Project property. At least thirty (30) days prior to submittal of final grading plans to the City, the Project Applicant, Project Archaeologist, City Planner, and the tribe(s) will meet to identify the location(s) for on-site reburial (the "Preservation Site(s)"). During the meeting, the group will develop a confidential exhibit depicting and describing the Preservation Site(s), which exhibit will be kept by the City Planner under confidential cover and not subject to a Public Records Act request.

The Preservation Site(s) will be located within the Project site development envelope of the Project, outside of any known and identified cultural resource sites. Prior to the issuance of the first building permit for the applicable tract or phase that includes a Preservation Site location, the Project Applicant will record a restrictive covenant over

the Preservation Site with the intent to ensure the site remains in an undisturbed state in perpetuity.

Any Preservation Site that includes relocated/ reburied Native American cultural resources will be capped by first placing a layer of geomat fabric over the reburied resources, and then filling the site with clean, sterile soil and contouring the site to appear in a natural state. Once a Preservation Site has been filled and contoured, no earthwork or ground-disturbing activities or subsurface facilities will be permitted in the Preservation Site, with the exception of those activities and requirements that may be required pursuant to the Fire Protection Technical Report.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
VI. ENERGY – would the project:				
a) Result in potentially significant adverse impact due to wasteful, inefficient, consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a) Project construction would utilize common methods for site preparation, grading and installation of all infrastructure. Construction vehicles and equipment would utilize fossil fuels such as gasoline, diesel fuel, and motor oil during grading and other construction activities anticipated to occur between 2023 and 2026. However, construction would be short-term and temporary. The Project is not anticipated to include any unique features or construction techniques that would generate high energy demand or be wasteful or otherwise result in inefficient use of fuels or other sources of energy. The Project would conform with all state and local requirements regarding construction-related energy use, including anti-idling regulations. Fuel demand for construction are based on annual CO_2E emissions and is estimated be 476,099 gallons of gasoline for worker, vendor and haul vehicles and 10,180 gallons of diesel fuel for heavy equipment operation.

During operation, the proposed Project would utilize energy in the form of electricity and natural gas, as well as fuel for vehicle trips to and from the project Site. The project is estimated to generate demand for 1,29440 kBTU of natural gas annually and 3,564,010 kWh of electricity

annually (CalEEMod 2020.4.0) (*See,* Appendix A, Air Quality and Greenhouse Gas Study (Birdseye Planning Group, December 2021). Gasoline demand would be 352,537 gallons per year based on estimated mobile source CO_2E emissions. . The proposed Project would be designed to comply with all applicable standards for building energy efficiency in the California Energy Code (Title 24, Part 6). The project would not result in wasteful energy use. A **less than significant** impact would occur under this threshold.

b) The Project would construct 899 apartment units and related improvements. The Project would utilize heavy equipment that meets CARB requirements for energy efficiency and emission reduction. Future development would be designed consistent with the City of Murrieta Climate Action Plan (2011) which addresses climate change, potential impacts and mitigation as discussed in Section VIII, *Greenhouse Gas*. The Project would not conflict with a state or local plan regarding renewable energy or energy efficiency. As stated, when in operation, the project would generate demand for 1,294,400 kBTU of natural gas annually and 3,564,010 kWh of electricity annually 198,470 kBTU of natural gas annually (CalEEMod 2020.4.0). While this would increase demand for public utilities in the region, this would not represent a significant impact with respect to energy consumption.

State and local plans regarding renewable energy or energy efficiency are summarized in the Air Quality and Greenhouse Gas Study (Birdseye Planning Group, January 2022 – Appendix A). The Project would comply with applicable elements of state and local plans through the implementation of measures addressing energy efficient design, water conservation and related features that reduce energy demand. While the Project would increase demand for public utilities in the region; for reasons stated above, this would not represent a significant impact with respect to energy consumption nor would it conflict with state or local plans for renewable energy or energy efficiency. **No impact** would result from the project under this threshold.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
VII. <u>GEOLOGY AND SOILS</u> – 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	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – would the project:				
based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Information provided in this section was obtained in part from the Updated Geotechnical Report, prepared by Alta California Geotechnical, Inc., October 2021) and provided herein as

Appendix H and the *Phase I Paleontological Resource Inventory* prepared by Cogstone Resource Management, Inc, (January 2022) and provided as Appendix I.

a (i-ii) Eight structural provinces have been identified with California that have been classified by predominant regional fault trends and similar fold structure. These provinces are in turn divided into blocks and sub-blocks that are defined by "major Quaternary faults." These blocks and subblocks exhibit similar structural features. Within this framework the site is located within Structural Province I, which is controlled by the dominant northwest trend of the San Andreas Fault and is divided into two blocks, the Coast Range Block and the Peninsular Range Block. The Peninsular Range Block, on which the site is located, is characterized by a series of parallel, northwest trending faults that exhibit right lateral dipslip movement. These faults are terminated by the Transverse Range block to the north and extend southward into the Baja Peninsula. These northwest trending faults divide the Peninsular Range block into eight sub-blocks. The site is located on the Riverside sub-block, which is bound on the west by the Elsinore-Whittier fault zone and on the east by San Jacinto fault zone. The site is located on the northern portion of the Riverside sub-block, approximately 6.5 miles east of the Elsinore Fault, 13.4 miles west of the San Jacinto Fault, and approximately 29.2 miles southwest of the San Andreas fault zone. The northern portion of the site is within a Riverside County fault zone related to the Murrieta Hot Springs Fault which is located 0.08 miles north of the site.

The project Site is not located with an Alquist-Priolo Earthquake Fault Zone. Thus, the potential for fault surface rupture on the subject site is very low. However, during the life of the proposed improvements, the property will likely experience moderate to occasionally high ground shaking from known faults, as well as background shaking from other seismically active areas of the Southern California region. The Updated Geotechnical Report (Alta California Geotechnical, Inc., October 2021), provided seismic design parameters using soil profile types identified in the 2019 California Building Code to address grading, site preparation and foundation design to minimize impacts associated with a seismic event. A detailed discussion of geotechnical recommendations is provided in Section 6.0. Conclusions and Recommendations, in the Updated Geotechnical Report (Appendix H). Measures include over-excavating soils at varying depths depending on the soil composition and recompacting it to provides suitable base material for structures, streets and other improvements. Implementation of these recommendations would minimize differential settlement/movement.

With implementation of these measures and implementation of applicable elements of the current California Building Code (CBC) requirements, seismic concerns and related structural impacts associated with ground shaking would be reduced to **less than significant.**

Source: Updated Geotechnical Report, prepared by Alta California Geotechnical, Inc., October 2021.

a (iii) Liquefaction typically occurs within the upper 30 feet of the surface, when saturated, loose, fine- to medium-grained soils (sand and silt) are present. Earthquake shaking suddenly

increases pressure in the water that fills the pores between soil grains, causing the soil to lose strength and behave as a liquid. When liquefaction occurs, the strength of the soil decreases, reducing the ability of the underlying soil to support foundations for buildings and other structures. The Site is unaffected by groundwater at existing pad elevation and is underlain by bedrock. The project would not be affected by liquefaction. **No impact** would occur under this threshold.

a (iv) The Site is no located within a State of California earthquake seismic hazard zone where areas of previous landslide have occurred. The geotechnical report concluded that subsurface conditions are comprised of moderately sloping bedrock topography. The Site will be stable provided the recommendations for over-excavation and fill placement are followed. Impacts related to landslides would be **less than significant**.

The geologic units are briefly described below.

Undocumented Artificial Fill. The undocumented artificial fill observed at the Site consists mainly of brown to grayish brown silty sand in a dry, medium dense to dense condition. The unit was logged to a depth of 6 feet below the ground surface.

Alluvium. Alluvium exists in the northwestern and eastern portions of the Site and consists of tan to brown Sand, Silty Sand, and Clayey Sand in a dry to slightly moist and medium dense to dense condition. The unit was encountered to a depth of fifteen (15) feet below the surface.

Pauba Formation (Sandstone Member). Underlying the Site is the Pleistocene age Pauba Formation which consists of a brown to dark brown, reddish brown, gray, and tan to orange fine to coarse grained sandstone, silty sandstone, and clayey sandstone in a dry to slightly moist and dense to very dense condition. The unit was encountered to a depth of forty-six (46) feet below the existing ground surface.

Source: Updated Geotechnical Report, prepared by Alta California Geotechnical, Inc., October 2021

b) As noted, the Site is hilly and earthwork would be required to create the building pad and parking area. The Site is greater than one acre in size and individual improvements would disturb more than one acre; thus, the Project would be subject to State Water Resources Control Board General Construction Permit during construction to minimize soil erosion. For additional information, see Section X, *Hydrology and Water Quality*. With implementation of Best Management Practices (BMPs) specified in the Stormwater Pollution Prevention Plan (SWPPP) prepared for the Project, soil erosion hazard impacts would be **less than significant.**

Source: Updated Geotechnical Report, prepared by Alta California Geotechnical, Inc., October 2021

c, d) Land subsidence is defined as the sinking or settling of land to a lower level. Causes can include: (1) earth movements; (2) lowering of ground water level; (3) removal of underlying

supporting materials by mining or solution of solids, either artificially or from natural causes; (4) compaction caused by wetting (hydro-compaction); (5) oxidation of organic matter in soils; or (6) added load on the land surface. The project Site is not located in an area of significant subsidence; however, as referenced, the Site may be subject to up to one-half inch of differential settlement. Soil testing indicated the soils on-site have low expansion potential. Site specific impacts related to subsidence would be **less than significant**.

Source: Updated Geotechnical Report, prepared by Alta California Geotechnical, Inc., October 2021

e) The proposed Project would connect to the existing sewer line located at the intersection of Walsh Center Drive and/or Murrieta Hot Springs Road. No septic systems would be installed. **No impact** would occur under this threshold.

f) A Paleontological Resources Assessment (Cogstone, January 2022 (Appendix I)) was prepared for the proposed Project to determine the potential effect on paleontological resources associated with implementation of the proposed Project. The Project is mapped as the sandstone member of the middle Pleistocene Pauba Formation and late Pleistocene to Holocene young alluvial channel deposits. Property just to the north of the Site is mapped as the upper part of the late Pliocene to Pleistocene "unnamed sandstone." These sediments may appear in the deepest cuts on the site near the northernmost property corner.

The paleontological record search revealed hundreds of fossils are known from the Pauba Formation and unnamed sandstone near the project location. No paleontological resources were observed during the intensive pedestrian survey. Based on the records search localities, both the Pauba Formation and the unnamed sandstone are assigned a high potential for fossil resources (Potential Fossil Yield Classification while the young alluvial channel deposits are assigned a low sensitivity.

Based on the sensitive of the site of paleontological resources, the planned depth of cuts and the depths of other finds within the area, impacts to paleontological resources may be significant without mitigation. Implementation of **Standard Condition PAL-1 and Mitigation Measure PAL-2** would reduce potential impacts to paleontological resources to **less than significant**.

> **SC PAL-1.** If during initial ground disturbance activities paleontological resources are encountered a qualified paleontological monitor shall be retained, and have the authority, if necessary, to stop, redirect grading activities, and evaluate the significance of any paleontological resources discovered on the property. If significant paleontological resources are encountered, adequate funding shall be provided· to collect, curate and report on these resources. A report shall be submitted to the City of Murrieta within 60 days from the completion of grading.
>
> **MM PAL-2.** A Paleontological Resources Management Plan shall be prepared and implemented by a Riverside County Certified Paleontologist for this project. At

minimum it shall include: (1) paleontological resources awareness training for all earthmoving personnel, (2) specify paleontological personnel qualifications, (3) identify the Western Science Center as the repository for fossils recovered, (4) take into account the latest information on cut depth and location and specify where monitoring shall be required, (5) require full-time monitoring of the Pauba Formation and (if encountered) unnamed sandstone sediments, (6) specify fossil recovery procedures and locality documentation, (7) specify laboratory procedures, (8) require a detailed catalogue of specimens recovered with identification by experts, and (9) require a final report with the catalogue and all specialists reports as appendices.

If unanticipated fossil resources are unearthed during construction excavations, the contractor shall cease all earth-disturbing activities within a 25-foot radius of the area of discovery until the discovery can be evaluated by a Riverside County Certified Paleontologist.

Source: *Phase I Paleontological Resource Inventory* prepared by Cogstone Resource Management, Inc, (August 2022) and provided as Appendix I.

Note that with implementation of **Standard Condition PAL-1 and Mitigation Measure PAL-2,** impacts to geology/soils resources, specifically, paleontological resources, associated with the project are anticipated to be less than significant. The following Standard Conditions are required by the City of Murrieta to be implemented by all projects to minimize geology/soils impacts associated with implementation of the proposed Project and would be incorporated as conditions of approval.

SC GEO-1: Based upon the geotechnical investigation (Appendix H), all of the recommended seismic design parameters identified in Appendix H (listed on Pages 13-36) shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including seismic soil stability on future project-related structures.

SC GEO-2: 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.

SC GEO-3: 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.

SC GEO-4: Based upon the geotechnical investigation (Appendix H), all of the recommended design and construction measures identified in Appendix H (listed on Pages 13-36) shall be implemented by the Applicant. Implementation of these specific

measures will address all of the identified geotechnical constraints identified at project site, including soil stability on future project-related structures.

SC GEO-5: Should any paleontological resources be encountered during construction of these facilities, earth-moving 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 mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource. See also Standard Condition PAL-1 and Mitigation Measure PAL-2 above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

The material presented herein is based on the *Air Quality and Greenhouse Gas Study for The Terraces,* prepared by Birdseye Planning Group, September 2022. The report is provided as Appendix A.

Potential GHG impacts are evaluated per the SCAQMD's recommended/preferred option threshold for all land use types of 3,000 metric tons CO_2E per year. GHG emissions associated with the project's construction period were estimated using the CalEEMod computer program. CalEEMod input parameters and output files are shown in Appendix A.

To address local GHG emissions, the City of Murrieta adopted a Climate Action (CAP) in July 2011. The CAP was updated in January 2020 as part of the General Plan Update. The CAP is intended to address the main sources of the emissions that cause climate change, which include emissions from the energy consumed in buildings and for transportation, as well as the solid

waste sent to landfills. The purpose of the CAP is to guide the development, enhancement, and ultimately the implementation of actions that will reduce Murrieta's GHG emissions by 15 percent below existing levels. With implementation of the CAP Update, citywide GHG emissions would be reduced by 40 percent below 2016 levels by 2030, 50 percent below 2016 levels by 2035, and by 80 percent below 2016 levels by 2050. As referenced in the 2011 CAP, individual projects that comply with applicable elements of the GHG reduction strategy are determined to be consistent with the CAP and will have a less than significant impact to climate change.

The discussion below addresses project specific GHG emissions relative to the 3,000 MT CO2E annual emission threshold referenced above as well as Project consistency with applicable CAP GHG reduction strategies.

a) Construction activities would generate greenhouse gas (GHG) emissions associated with equipment operation. The project-related construction emissions would be generated over a two-year construction phase extending from 2023 through 2026. Site preparation and grading typically generate the greatest emission quantities because the use of heavy equipment is greatest during this phase of construction. Emissions associated with the construction period were estimated based on the projected maximum amount of equipment that would be used onsite at one time. Air districts such as the SCAQMD have recommended amortizing construction-related emissions over a 30-year period to calculate annual emissions. Construction of the Project would generate approximately 5,497 metric tons of GHG emissions during construction. Amortized over 30 years, the Project would generate 183 metric tons as shown in Table 10 below.

Table 10 also shows the new unmitigated construction, operational, and mobile GHG emissions associated with the proposed Project. Long-term operational emissions relate to energy use, solid waste, water use, and transportation. Each source is shown below.

Table 10
Combined Annual Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)
Construction	6 metric tons
Operational	
Energy	1,367 metric tons
Solid Waste	208 metric tons
Water	289 metric tons
Mobile	4,499 metric tons
Total	**6,546 metric tons**

See Appendix A for CalEEMod software program output

Unmitigated, the combined annual emissions would total approximately 6,546 metric tons per year in CO2E. The majority (69%) of the project's GHG emissions are associated with mobile sources. As discussed, individual projects that would generate less than the 3,000 annual MT screening threshold would have a less than significant environmental impact under CEQA. The project would exceed the 3,000 MT annual standard; thus, GHG emissions would be potentially significant without mitigation incorporated.

Table 11 shows mitigated GHG emissions assuming the implementation of the following design features and regulatory requirements;

Consistent with AB 341 (which amended the California Integrated Waste Management Act of 1989 (AB 939)), the Project would implement measures to diver the amount of solid waste disposed of in landfills by 75%.

Consistent with Senate Bill X7-7, the Project would incorporate water saving features, including the use of native and drought tolerant landscaping, water efficient irrigation systems, and installation of low flow plumbing fixtures (i.e., toilets, show heads and faucets) that would reduce water demand by 20%.

The Project would incorporate solar generating infrastructure to provide a minimum of 10% of daily electrical energy demand. Further, the Project would be meet density requirements per the Murrieta Municipal Code, provide 5% affordable units, be located proximal to downtown Murrieta and urban job centers and provide off-site pedestrian connections to facilitate pedestrian access to transit located approximately 0.25 miles to the east of the site. This would reduce VMT by 31% and reduce mobile source emissions relative to business as usual. While not formally considered in the VMT reduction calculations, the Project will have a community center with offices support infrastructure, conference facilities and related amenities that would contribute to a further reduction in VMT associated with home/work commute trips. As shown in Table 11, these measures would reduce overall GHG emissions by 25%

Table 11
Combined Mitigated Annual Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)
Construction	183 metric tons
Operational Energy Solid Waste Water	 1,300 metric tons 52 metric tons 231 metric tons
Mobile	3,127 metric tons
Total Mitigated	**4,893 metric tons**
Total Business As Usual	**6,546 metric tons**

Emission Reduction	**25.2%**

See Appendix for CalEEMod software program output.

While emissions would remain above 3,000 MT CO_2E annually, the Project would be compliant with the City of Murrieta Climate Action Plan and applicable statewide regulations designed to reduce GHG emissions. This summarized below under threshold (b). Because the Project would be CAP compliant and measures would be implemented to reduce GHG emissions to the extent feasible, impacts related to GHG emissions would be **less than significant.**

b) The City of Murrieta adopted a Climate Action (CAP) in July 2011. The 2011 CAP was updated in January 2020 as part of the General Plan Update. The CAP is intended to address the primary sources of emissions that cause climate change. These include emissions from energy consumed in buildings (i.e., electricity and natural gas), fossil fuel burning engines as well as the solid waste sent to landfills. The purpose of the CAP is to guide the development, enhancement, and ultimately the implementation of actions that will reduce Murrieta's GHG emissions by 15 percent below existing levels. As stated, with implementation of the CAP Update, citywide GHG emissions would be reduced by 40 percent below 2016 levels by 2030, 50 percent below 2016 levels by 2035, and by 80 percent below 2016 levels by 2050. As referenced in the 2011 CAP, individual projects that comply with applicable elements of the GHG reduction strategy are determined to be consistent with the CAP and will have a less than significant impact to climate change. The CAP Update states that project consistency with the CAP will be determined through the CAP Consistency Review Checklist (Checklist). The Checklist contains GHG reduction measures applicable to development projects that are required to be implemented on a project-by-project basis to ensure that the specific emission targets identified in the CAP are achieved. New development projects are required to incorporate all potential applicable CAP measures to demonstrate consistency with the CAP. A condition of approval will require the applicant provide a CAP checklist documenting compliance with applicable CAP measures as part of the condition satisfaction process.

The discussion below addresses Project specific GHG emissions relative to project consistency with applicable CAP GHG reduction strategies. The proposed Project would entail construction and operation of a new 899-unit apartment complex and related on- and off-site improvements. The proposed Project would be designed consistent with Title 24 of the California Energy Code which includes the installation of energy efficient appliances and low flow plumbing fixtures. The Project would increase demand for electricity and natural gas on-site as well as off-site for the treatment of water for potable use as well as the treatment of wastewater. The Project would integrate solar panels to provide up to 20% of the daily electrical demand per Municipal Code Section 16.08.040(C)(3)(d), use of water-efficient systems both indoor and outdoor to reduce potable and irrigation water demand by 20%. This would be achieved in part by installing low flow water fixtures and designing Project landscaping consistent with the City of Murrieta Water Efficient Landscape Ordinance (Section 16.27 of the Municipal Code). These are stipulated in the CAP checklist.

Applicable 2011 CAP goals include the following:

Goal LU-4: A housing stock that meets the diverse needs of Murrieta's existing and future residents.

LU 4.3: Locate multiple-family housing adjacent to jobs, retail, schools, open space, public transportation, and transportation corridors.

Action: Ensure new development is located as close to existing development as possible and maximize the density and mix of uses.

Goal LU-8: A community that provides opportunities for mixed use and/or transit-oriented development.

LU-8.1: Encourage integrated development that incorporates a mix of uses (residential, commercial, office) in mixed use or transit-oriented development areas.

LU-8.4: Design mixed uses or transit-oriented development projects to:

- Create a pleasant walking environment to encourage pedestrian activity;
- Integrate with surrounding uses to become a part of the neighborhood rather than an isolated project.

LU-8.6: Encourage higher density residential, commercial, and employment development near a future Metrolink or High-Speed Rail Station, along other major public transportation routes, and at other suitable locations.

Action: By 2013, update the Development Code to include the above policies as design standards.

Goal CIR-1: A circulation system that serves the internal circulation needs of the City, while also addressing the inter-community or through travel needs.

CIR-1.1: Ensure the transportation system can adequately serve the concentrations of population and employment activities identified by the Land Use Element.

CIR-1.11: Support the implementation of complete streets through a multi-modal transportation network that balances the needs of pedestrians, bicyclists, transit riders, mobility-challenged persons, older people, children, and vehicles while providing sufficient mobility and abundant access options for existing and future users of the street system.

Action: Construct pedestrian, bicycle, and transit improvements on major thoroughfares.

Goal CIR-7: Residential areas and activity centers are accessible to all pedestrians, including persons with disabilities or having special accessibility needs.

CIR-7.1: Encourage future developments to provide an internal system of sidewalks/pathways linking schools, shopping centers, and other public facilities with residences.

CIR-7.2: Require pedestrian access from the interior of new residential areas to public transit stops.

CIR-7.3: Encourage safe pedestrian walkways and ensure compliance with the Americans with Disabilities Act (ADA) requirements within all developments.

Action: Incorporate pedestrian friendly street standards into the Development Code.

The CAP references a jobs/housing balance in Murrieta that requires residents to commute out of Murrieta to work. While a goal of the CAP is to increase jobs in Murrieta, Policy LU 4.3 acknowledges the benefit of locating multifamily housing close to existing development and transportation corridors. Additional goals and related policies focus on addressing transit accessibility as well as pedestrian connectivity to off-site transportation resources. These goals address the need to reduce GHG emissions associated with use of vehicles as the primary mode of transportation within the City of Murrieta.

Implementation of the 2020 CAP Update will require that new development projects attain higher levels of energy efficiency and incorporate more sustainable design standards than addressed in the 2011 CAP. New developments that are consistent with applicable GHG reduction measures in a CAP Update are eligible for CEQA streamlining, per the provisions of State CEQA Guidelines Section 15183.5. Under these provisions, if a project can show consistency with applicable GHG reduction measures in a CAP, the level of analysis for the project required under CEQA with respect to GHG emissions can be reduced considerably. Furthermore, a project's incremental contribution to cumulative GHG emissions may be determined not to be cumulatively considerable. The 2020 CAP Update meets the criteria identified in Section 15183.5; and thus, is considered a "qualified" CAP and may be used for the specific purpose of streamlining the analysis of GHG emissions for individual projects. The CAP Update provides environmental review streamlining benefits for development projects proposed in the city provided they demonstrate consistency with this CAP Update.

The project Site is located within a TOD overlay zone. Riverside Transit Agency (RTA) Route 23 serves the general area with hourly service to/from the Rancho Springs Medical Center which is located at the Murrieta Hot Springs Road/Hancock Avenue intersection. No transit service is currently provided along Sparkman Court fronting the site; however, bus stops are located along Hancock Drive approximately 0.25 miles east of the site. This would generally support CAP land use and circulation policies noted above and transportation related implementation strategies, specifically, T-3 which addresses affordable housing in TOD overlay zones.

As discussed, the Project would exceed 3,000 MT of annual CO2e emissions and would be consistent with applicable 2011 CAP goals intended to reduce overall GHG emissions city-wide through implementation of General Plan (2035). Further, the Project would be designed to ensure compliance with measures in the 2020 CAP Update intended to reduce City-wide GHG emissions. The Project will not impede or delay local or statewide initiatives to reduce GHG emissions. Impacts would be **less than significant**.

Connect SoCal 2020-2045 RTP/SCS Consistency. On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy), and the addendum to the Connect SoCal Program Environmental Impact Report.

Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern California residents within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

Further, *Connect SoCal* is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG emission reduction goals and federal CAA requirements. The project Site and surrounding area are zoned Office/TOD Overlay. While the site and surrounding area was envisioned for office development, multifamily residential is allowed under the TOD overlay. The Project would utilize the existing street network and improve a segment of a planned extension of Monroe Avenue from Los Alamos Road to the north and Murrieta Hot Springs Road to the south. The Project would not conflict with plans to integrate the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The Project does not involve any improvements to the regional transportation system. The Project would be consistent with or would not conflict with any of the goals identified in Connect SoCal.

SB 32/2017 Scoping Plan Consistency. The 2017 Scoping Plan Update reflects the statewide 2030 target of a 40% reduction in GHG emissions below 1990 levels, set by EP B-30-15 and codified by SB 32. Table 12 summarizes the Project's consistency with applicable action elements of the 2017 Scoping Plan.

Table 12
2017 Scoping Plan Consistency Summary

ACTION	RESPONSIBLE PARTIES	CONSISTENCY
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	California Public Utility Commission (CPUC), California Energy Commission (CEC) and California Air Resources Board (CARB)	**No Conflict**. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		**No Conflict.** The Project would be constructed in compliance with current CBC requirements including the 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standard requirements.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plugin hybrid light-duty EVs by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, Office of Planning and	**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project must comply with the standards as applicable;

ACTION	RESPONSIBLE PARTIES	CONSISTENCY
	Research (OPR), Local Agencies	and thus, would comply with the strategy.
At least 4.2 million zero emission and plugin hybrid light-duty EVs by 2030.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, Office of Planning and Research (OPR), Local Agencies	**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.		**Not Applicable.** This measure is not related to the project scope.
Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise		**No Conflict.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.

ACTION	RESPONSIBLE PARTIES	CONSISTENCY
2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		**No Conflict.** As stated in Section XVII of this Initial Study, project improvements would result in a 31% reduction in VMT relative to business as usual conditions. Impact would be considered less than significant..
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	**No Conflict.** The project would exceed SCAQMD GHG emission standards for residential sources; however, it would implement all applicable CAP goals and action items to reduce GHG emissions. As stated, these action items would reduce GHG emissions by approximately 25% and VMT by approximately 31% over business as usual emissions. The project would not conflict with GHG reduction efforts.
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GOBiz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	**No Conflict.** The project would not conflict with use of adjacent streets by pedestrians or bicycles. Further, transit service provided by Riverside County Transit Route 23 would not be affected by the project.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, California Transportation Commission (CTC), OPR, SGC, CARB	**Not Applicable.** This measure is not related to the project scope.

ACTION	RESPONSIBLE PARTIES	CONSISTENCY
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, California Natural Resource Agency (CNRA), CARB, Caltrans, CEC, GO-Biz	**No Conflict.** This measure would apply to all trucks accessing the project site. It is presumed that these vehicles would primarily be delivery vans operated as part of the statewide goods movement sector. Access to the Project site would be provided from Vista Murrieta Road and Sparkman Court/Monroe Avenue.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near zero emission freight vehicles and equipment powered by renewable energy by 2030.		**Not applicable.** This measure is unrelated to the project scope.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	**No Conflict.** When adopted, this measure would apply to all fuel purchased for use in vehicles accessing the project site. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, California Department of Food and Agriculture (CDFA), California State Water Resource Control Board (SWRCB), Local Air Districts	**No Conflict.** The Project would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The Project would not obstruct or interfere with agency efforts to reduce SLPS emissions.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**No Conflict.** The Project would be required to comply with applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the

ACTION	RESPONSIBLE PARTIES	CONSISTENCY
		post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink:		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	**Not applicable**. The Project site is not an identified property that needs to be conserved.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.		**Not applicable**. The entire site is planned for development.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments.		**No Conflict.** To the extent appropriate for the proposed residential buildings, wood products would be used in construction, including roof structure. Additionally, the Project includes landscaping using native species.
Establish scenario projections to serve as the foundation for the Implementation Plan.		**Not applicable.** This measure is unrelated to the project scope.
Implement Forest Carbon Plan.	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	**Not applicable.** This measure is unrelated to the project scope.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	**Not applicable.** This measure is unrelated to the project scope.

As discussed, the Project would exceed 3,000 MT of annual CO2e emissions; however, it would be consistent with applicable CAP goals intended to reduce overall GHG emissions city-wide through implementation of General Plan (2035) as well as applicable elements of the CARB 2017 Scoping Plan. The Project will not impede or delay local or statewide initiatives to reduce GHG emissions. Impacts would be **less than significant**.

Source: *Air Quality and Greenhouse Gas Study for The Terraces,* prepared by Birdseye Planning Group, September 2022. The report is provided as Appendix A

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous material 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?	☐	☐	☐	☒
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 for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures, either directly or indirectly, to a significant	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
risk of loss, injury, or death involving wildland fires?				

Material in this section is based in part on the *Phase I Environmental Site Assessment* prepared by Weis Environmental, Inc., (October 2021) and provided herein for reference as Appendix J.

a-c) The proposed Project would be a new 899-unit apartment complex. No hazardous materials other than small quantities of cleansers, automobile fluids, swimming pool chemicals typical of residential development would be stored on-site. Other than common pool maintenance chemicals stored in an equipment room, no hazardous materials would be used, created or stored on-site. Remnant foundation material, concrete, pavement and trash/debris would be removed during demolition. No asbestos or lead testing would be required.

The nearest school to the project site is Murrieta High School located at 24801 Monroe Avenue. This school is located approximately one-half mile north of the project site. No schools are located within ¼ mile from the site. A **less than significant** impact would occur under thresholds **a, b** and **c**.

Source: *Phase I Environmental Site Assessment* prepared by Weis Environmental, Inc., (October 2021)

d) There is no visible evidence that uses or activities that could have caused or contributed to a release of hazardous chemicals or materials on the property occur or have occurred on the site. The site is not on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. This is confirmed in the Phase I Environmental Site Assessment (Weis Environmental, Inc., October 2021). **No impact** would occur under this threshold.

Source: *Phase I Environmental Site Assessment* prepared by Weis Environmental, Inc., (October 2021)

e, f) French Valley Airport is located approximately 3.5 miles east of the site. The proposed Project is not located within the French Valley Airport land use boundary, within 2 miles of a public use airport in proximity to a private airstrip. **No impact** would occur under thresholds **e** and **f**.

Source: Riverside County Airport Land Use Compatibility Plan Policy Document, Map FV-1, January 2012.

g) The proposed Project would not obstruct access to the project vicinity through road closures or other project actions that could impact evacuation routes or otherwise impair evacuation during emergencies. As referenced, Sparkman Court (Monroe Avenue) and Vista Murrieta Road would be improved to City standards. Improvements would be managed per a Traffic Control Plan to ensure that access is maintained for ingress/egress. Post-construction, access on affected roadways would be improved relative to existing conditions. Access to areas surrounding the site via Vista Murrieta Road, Murrieta Hot Springs Road and Monroe Avenue would not be adversely affected by the project. **No impact** would occur.

Source: Site observations and project plans, 2022.

h) The project Site is located in a developing area with commercial uses to the east and residential uses to the north. The project Site is not located in a Fire Hazard Severity Zone as designated in maps prepared by the California Department of Forestry and Fire Protection (Riverside County, 2009). Water for fire protection would be provided by hydrants installed per City of Murrieta requirements. **No impact** would occur under this threshold.

Source: California Department of Forestry and Fire Protection. *Riverside County Very High Fire Hazard Severity Zone Map -Murrieta,* December 2009.

Note that impacts related to hazards and hazardous materials would be less than significant or not be affected by the Project as stated under threshold e-h. The following Standard Condition is required by the City of Murrieta to be implemented by all projects to minimize hazard and hazardous materials impacts and would be incorporated as a condition of approval.

> **SC 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.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. 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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
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 surveys, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface water runoff which would result in flooding on- or off-site?	☐	☐	☒	☐
(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?	☐	☐	☒	☐
(iv) Otherwise impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami or seiche risk release of pollutants due to project inundation?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Information presented in this section is derived in part from the *Preliminary Drainage Study for The Terraces Project*, prepared by Kimley-Horn and Associates, Inc., January 2022 (Appendix K) and the *Preliminary Water Quality Management Plan*, prepared by Kimley-Horn and Associates, Inc., January 2022 (Appendix L).

a, c) The project Site is vacant; however, remnant concrete remnant driveways and building foundations are present primarily in the northern portion of the site. According to the Hydrology and Drainage Study (January 2022), the existing Site is undeveloped with hills, slopes and natural drainage courses. The topography of the site generally slopes to the southwest. There is no existing stormwater system on site. Runoff sheet flows to four separate discharge locations. Existing storm drain infrastructure for the project area is within Sparkman Court. The lowest point is at the southeast corner where stormwater collects in a vegetated area along Murrieta Hot Springs Road.

On-site drainage would be modified as a result of project construction. The Project will create new impervious surfaces (i.e., asphalt, concrete and building rooftops) and landscape areas. The area of disturbance for the proposed Project is approximately 38.7 gross acres (31.39 net). The site has been divided into eleven drainage management areas (DMAs) referenced as DMA A, B1, B2, B3, B4, B5, C1, C2, D1, D2 and E. The Project proposes storm drain infrastructure to convey project runoff to existing discharge locations. The design flow for a 100-year storm event is 195.2 cubic feet per second (cfs). Prior to discharge, runoff will be detained/infiltrated within one of four underground basins. The proposed drainage basins will be designed to adequately convey the 100-year flow rates. The detention basin will provide storage to reduce discharge to existing conditions.

While the Project would modify on-site drainage, it would not alter the course of an existing stream or river that would result in on- or off-site erosion or siltation or otherwise impact riparian resources located at the southeast corner of the site. Construction of the proposed basins would retain the design capture volume for the project. This would avoid flooding on- or off-site. The Project would not substantially degrade water quality or otherwise violate discharge standards. Impacts would be **less than significant**.

Source: *Preliminary Drainage Study for The Terraces Project*, prepared by Kimley-Horn and Associates, Inc., January 2022

b, e) The project Site is located in the Eastern Municipal Water District service area. A water main is located along Los Alamos Road and would be the source of potable water for the project. As stated, an 18" water main would be installed within old Monroe Avenue between the old Monroe Avenue and Vista Murrieta Road and Los Alamos Road. EMWD produces potable groundwater from two management plan areas within the San Jacinto Groundwater Basin. The areas are the West San Jacinto Groundwater Basin Management Plan area (West San Jacinto Basin) and the Hemet/San Jacinto Water Management Plan area (Hemet/San Jacinto Basin). EMWD also owns and operates two desalination plants that convert brackish groundwater from the West San Jacinto Basin into potable water. These plants provide a source of potable water, protect potable sources of groundwater and support EMWD's groundwater salinity management program. No direct groundwater basin recharge occurs on or proximity to the project Site and no groundwater would be directly used by the Project. **No impact** to groundwater recharge would occur with the proposed Project.

The Project is consistent with the City of Murrieta General Plan; and potable water would be obtained from EMWD as confirmed in the will serve letter dated June 23, 2021. The Project would not change how the regional groundwater is managed; thus, the Project would not directly interfere with groundwater recharge. The Project would be consistent with EMWD's Urban Water Management Plan. **No impact** would occur under this threshold.

Source: Eastern Municipal Water District, *2020 Urban Water Management Plan Update,* July 2021.
Source: Eastern Municipal Water District, Will Serve Letter, June 2021.

d) The project Site is not located within a 100-year mapped flood zone (FEMA Flood Insurance Rate Map No. 06065C2715G and 0605C2720G, August 2008). The Project would redirect on-site drainage patterns; however, it would not impede or redirect flood flows from surrounding properties. As referenced, all drainage would be managed to ensure pre-construction flows off-site are maintained. The Project would not expose people or structures to flood hazard from severe storm events.

The project Site is not located in proximity to a reservoir; however, per the City of Murrieta General Plan, Figure 12-7, Dam Inundation, the project Site is located within or in proximity to the inundation zone for the Diamond West Dam and Diamond Saddle Dam. Per the General Plan Safety Element, dam failure is considered an extremely remote possibility as dams are designed to be much stronger than necessary to survive the largest magnitude possible earthquake without affecting the dam structure (City of Murrieta General Plan, July 2011). While Project implementation could expose people or structures to flood hazard from a dam failure should it occur.

Seiches are oscillations of the surface of inland bodies of water that vary in period from a few

minutes to several hours. Seismic excitations can induce such oscillations. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. The Project is located well inland from the Pacific Ocean and there are no open water bodies in proximity to the site that would impact the property should a seiche event occur. The Project site is generally isolated and not located near any slopes that would be subject to a mudflow hazard.

Because of the site proximity to the Diamond West Dam and Diamond Saddle Dam, impacts under this threshold would be **less than significant,**

Source: Federal Emergency Management Agency. *Flood Insurance Rate Map No.* 06065C2715G and 06065C2720G, August 2008; Source: City of Murrieta. *General Plan 2035*, July 2011; Source: Site observations and plans, 2018

e) This section provides an evaluation of project consistency with the following plans: Water Quality Control Plan for the San Diego Basin and Murrieta Municipal Separate Storm Sewer System (MS4) Permit. Currently, there is no Groundwater Management Plan for the San Jacinto Groundwater Basin. EMWD, as the Groundwater Sustainability Agency, is required by the Department of Water Resource, to develop by 2022 and implement by 2042 a Groundwater Sustainability Plan (GSP). The Project will receive potable water from EWMD but does not dictate the source of the water or management of resources to ensure demand is met.

Water Quality Control Plan for the San Diego Basin

The project Site is located within the San Diego Basin; and thus, subject to requirements within the San Diego Regional Water Quality Control Board (Region 9) Water Quality Management Plan (1994) as amended May 2016. The *Water Quality Control Plan for the San Diego Basin* is intended to preserve and enhance water quality and protect the beneficial uses of water bodies in the San Diego Basin watershed. The Basin Plan provides water quality standards for water resources in the San Diego Basin and includes an implementation plan to maintain these standards. The standards serve as the basis for the basin's regulatory programs. Basin Plan implementation occurs primarily through issuance of individual Waste Discharge Requirements (WDRs); discharge prohibitions; water quality certifications; non-point sources, and storm water; and monitoring and regulatory enforcement actions, as necessary. As discussed herein, the Project would not cause or contribute to the release of polluted stormwater runoff or generate other discharges that could adversely impact water quality within the San Diego Basin. As stated, the Project proposes storm drain infrastructure to convey project runoff to existing discharge locations. Prior to discharge, runoff will be detained/infiltrated within one of four underground basins. The proposed drainage basins will be designed to adequately convey the 100-year flow rates. The detention basin will provide storage to reduce discharge to existing conditions. The Project would not conflict with water quality goals provided in the San Diego Basin Plan.

Municipal Separate Storm Sewer System (MS4) Permit

The Riverside County Watershed Protection Program (the Program) is a regulatory compliance partnership comprising the cities of Temecula, Wildomar and Murrieta, the County of Riverside

and the Riverside County Flood Control and Water Conservation District (collectively the Co-Permittees) who operate an interconnected municipal separate storm sewer stem (MS4) which discharges stormwater and urban runoff pursuant to a National Pollutant Discharge Elimination System (NPDES) permit. The MS4 Permit is administered by the San Diego Regional Water Quality Control Board and requires the Co-Permittees to develop and implement surface water quality protection and management programs and report annually on progress and program effectiveness.

The City of Murrieta operates a storm drain system that protects homes, businesses and other developments from flooding. To regulate the water quality within the watershed, the City of Murrieta operates the storm drain system under the MS4 Permit issued by the San Diego Water Quality Control Board. The goal of the MS4 Permit is to protect the beneficial uses of the receiving waters. To implement the permit requirements associated with new development and redevelopment projects, the City of Murrieta require the development of a Water Quality Management Plan that identifies post-construction Best Management Practices (BMPs) to reduce discharges of pollutants into storm water. As discussed, the Project would not release polluted discharge into the stormwater system or into an off-site surface water resource. All flows would be retained on-site and released into an existing outfall. The Project would not impact water quality goals specified in the WDRs referenced above. The Project would be consistent with the City of Murrieta MS4 Permit. **No impact** would occur under this threshold.

Source: Eastern Municipal Water District, *2020 Urban Water Management Plan Update,* July 2021.
Source: State Water Resources Control Board, Water Quality Control Plan for the San Diego Basin (9), September 1994, amended May 2016.
Source: City of Murrieta Jurisdictional Runoff Management Program, Santa Margarita Region Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015- 0100, November 2017.

Note that impacts related to hydrology and water quality would be less than significant or not affected by the project as stated under thresholds a-e above. The following Standard Condition is required by the City of Murrieta to be implemented by all projects to minimize hydrology and water quality and would be incorporated as conditions of approval.

> **SC HYD-1**: The project proponent will select best management practices from the range of practices identified by the City of Murrieta 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.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XI. <u>LAND USE AND PLANNING</u> -- Would the proposal:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

a) The proposed Project would develop a new 899-unit apartment complex on a site Office/TOD Overlay. Multifamily development is allowed in an Office/TOD Overlay per a Development Application at a minimum density of 30 units per acre. Surrounding land use includes single-family residential to the north and northeast; multifamily residential to the northeast, commercial/office buildings to the east, the Interstate 15 corridor to the west and Murrieta Hot Springs Road to the south. Vacant land zoned *The Triangle Specific Plan 276*, is located to the south on the south side of Murrieta Hot Springs Road.

The proposed Project would improve the Vista Murrieta Road frontage to the north and improve a segment of the planned Monroe Avenue extension generally fronting the eastern site boundary. This segment would replace the existing segment of Sparkman Court that extends north/south between Walsh Center Drive and Murrieta Hot Springs Road. No new or unplanned public roads would be constructed to serve the Project. The Project would not result in the construction of improvements that would facilitate circulation on public roads surrounding the site consistent with that anticipated in the General Plan. Improvements would include constructing a segment of the planned Monroe Avenue extension and improvements to Vista Murrieta Road. These improvements would enhance the existing circulation system but are not anticipated to divide an existing community. Impacts would be **less than significant** under threshold **a**.

Source: City of Murrieta. *Zoning Map*, 2014

b) The proposed Project is consistent with the Office/TOD Overlay zoning and General Plan designation. The General Plan is consistent with the zoning designation for the site and facilitates compliance with relevant development standards in the municipal code. The proposed project would be compliant with goals, objectives and policies contained in the General Plan that pertain to the proposed use on the subject property.

The General Plan Circulation Element represents the City's overall transportation plan to accommodate the movement of people and goods within and through the City. It establishes goals and policies to achieve a balanced transportation system that adequately serves the growth and development anticipated in the Land Use Element. Goals and policies relevant to the proposed project are identified below.

GOAL CIR-1: Develop a circulation system that serves the internal circulation needs of the City, while also addressing the inter-community or through travel needs.

Policy CIR-1.10: Limit driveway and access on major arterial streets, where feasible, to maintain a desired quality of traffic flow.

Consistent. All driveway access would be from Monroe Avenue/Sparkman Court to the east and Vista Murrieta Road to the north. A gated Emergency Vehicle Access (EVA) only may be constructed north of Murrieta Hot Springs Road. Resident, guest or vendor access would be prohibited from this access to arterial streets (i.e., Murrieta Hot Springs Road), only in the case of an emergency and as directed by the law enforcement officers.

Policy CIR-1.12: Maintain an effective City truck route system to ensure that movement of truck traffic is accommodated by and confined to designated streets.

Consistent. Avoiding direct access to/from the site via Murrieta Hot Springs Road would ensure truck movement along Murrieta Hot Springs Road, a potential truck route designated in Exhibit 5-5 of the General Plan Circulation Element, is maintained.

GOAL CIR-2: Develop a comprehensive circulation system that promotes safety.

Policy CIR-2.14: Ensure that efficient and safe access for emergency vehicles is provided to all development.

Consistent. As requested by the Murrieta Fire Department, EVA would be available from Vista Murrieta Road to the north and the primary access points along the west side of Sparkman Court (Monroe Avenue). A gated EVA-only access exit route may be constructed on the south side of the site to Murrieta Hot Springs Road/Caltrans on-ramp.

GOAL CIR-3: Develop circulation systems that preserve the quality of residential neighborhoods.

Policy CIR-3.2: Review the design of all proposed new residential neighborhoods to ensure that "cut through" routes are minimized and pedestrian connections are maximized.

Consistent. The proposed Project would be an apartment community with dedicated access from Vista Murrieta Road to the north and Monroe Avenue to the east. All site access would be via existing road corridors and required improvements are included as part of the General Plan

Circulation Element. With the exception of a dog park or other passive recreational feature located on the northeast corner of the property, on the east side of Monroe Avenue, the Site will not be bisected by public streets.

GOAL CIR-7 Ensure residential areas and activity centers are accessible to all pedestrians, including persons with disabilities or having special accessibility needs.

Policy CIR-7.1: Encourage future developments to provide an internal system of sidewalks/pathways linking schools, shopping centers, and other public facilities with residences.

Consistent. The project Site will include a variety on-site mobility options, such as sidewalks/pathways linking neighborhoods, parking areas, recreational facilities, office support facilities, and other on-site features internally and to off-site sidewalks along Monroe Avenue and Vista Murrieta Road. Residents will be able to access both on- and off-site amenities and commercial areas.

Policy CIR-7.2: Require pedestrian access from the interior of new residential areas to public transit stops.

Consistent. The Project will be designed to allow pedestrian access to existing transit stops along Hancock Avenue, approximately ¼ mile to the east.

CIR-7.3: Encourage safe pedestrian walkways and ensure compliance with the Americans with Disabilities Act (ADA) requirements within all developments.

Consistent. As stated, the Project design will include sidewalks and pathways connecting the various on- and off-site features and amenities. The Project will be designed to meet Americans with Disabilities Act (ADA) requirements.

GOAL CIR-9: Provide an adequate supply of private off-street and public parking.

Policy CIR-9.1: Ensure development projects comply with the parking requirements identified in the Development Code.

Consistent. The Project will provide 1,500 parking spaces, or 1.72 spaces per dwelling unit for Phase I and 1.57 spaces per dwelling unit for Phase II. This would comply with the parking requirement with a reduction incentive for affordable housing units (approximately 45 units or 5% of the total) incorporated into the Project.
The following goals and policies are focused on air quality and are relevant to the Project based on proximity to Interstate 15 which is located adjacent to and west of the site.

Goal AQ-2: The relationship between land use and air quality is considered in policy decisions in order to protect public health and improve air quality.

Policy AQ-2.2: *Avoid locating new homes, schools, childcare and elder care facilities, and health care facilities within 500 feet of freeways.*

Consistent. As discussed in Section III, Air Quality, a HRA was prepared to address potential health risks to project residents living within 500 feet of a freeway. Compliance with **Mitigation Measure AQ-1** would reduce potential health risk impacts to less than significant. The Project would be consistent with Policy AQ-2.2.

Goal AQ-6: Stationary source pollution (point source and area source) are minimized through existing and future regulations and new technology.

Policy AQ-6.5: *New multi-family residential buildings and other sensitive land uses in areas with high levels of localized air pollution should be designed to achieve good indoor air quality through landscaping, ventilation systems, or other measures.*

Consistent. With implementation of **Mitigation Measure AQ-2**, the Project would be consistent with Policy AQ-6.5.

City of Murrieta Housing Element. The draft Housing Element of the City of Murrieta General Plan describes the City of Murrieta's 2021-2029 Housing Element policy program. The Housing Plan describes specific policies and program actions to assist City decision-makers in achieving the City's overall housing goals. This Plan identifies goals, policies, and program actions addressing future housing opportunities, removal of governmental constraints to affordable housing, improving the condition of existing housing and providing equal housing opportunities for all residents. The City's overall housing goal is to encourage a diverse, sustainable, and balanced community by implementing strategies and programs that support, preserve and enhance the special character of Murrieta.

The Southern California Association of Governments (SCAG) has conducted a Regional Housing Needs Assessment (RHNA) to determine the City's share of housing needs. The RHNA quantifies Murrieta's local share of housing needs by income category. The income categories are based on the most current Median Family Income (MFI) for Riverside County. The City's 2021-2029 RHNA is as follows:

- 1,008 units - Very low income (0-50% County MFI)
- 584 units - Low income (51-80% of County MFI)
- 545 units - Moderate income (81-120% of County MFI)
- 906 units above moderate income (120% or more of County MFI)

The total number of housing units for Murrieta as specified in the RHNA is 3,043.
The proposed project would provide 45 very low-income units. The remainder would be market rate units. The Project will provide 4.5 percent of the very low-income housing allocation.

The Housing Element includes various goals and implementation actions focused on achieving the housing element objectives. Those most applicable to the Project are summarized as follows:

Housing Goal #1: Adequate housing opportunities throughout the City of Murrieta

Policy Action 1-1: Affordable Housing Opportunities. *The City will support actions through the use of development agreements, expedited development review, and expedited processing of permits, to encourage expedient construction and occupancy for projects for lower- and moderate-income housing. The City will implement this program as affordable housing projects are submitted to the City. The City will also continue to provide information on development opportunities to interested developers online, at City Hall and in other public places. The City will continue with the disposition process (started in the previous cycle) of the City's Housing Authority properties which is to provide funding and assistance to develop an affordable housing project in the City.*

Consistent. Of the 899 total units, the proposed Project would provide 45 affordable housing units. The Project is allowed by right in the TOD Overlay, provided the design guidelines are met as discussed above. The City and applicant are working through the discretionary process as required per City of Murrieta policy. The Project would be consistent with Housing Goal #1 and Policy Action 1-1.

Housing Goal #2: Conserve and enhance the quality of existing housing and residential neighborhoods.

Policy Action 2-5: Residential Development in the TOD Overlay District. *The City of Murrieta has the Transit Oriented Development Overlay District (TOD) near the downtown Murrieta area. The TOD overlay encourages the development of residential units near essential retail and within well connected existing and planned transit areas. The City will continue to work with developers to encourage and improve feasibility of residential developments alongside office and commercial in the TOD. Specifically, when available and necessary the City will utilize waivers and regulatory incentives to encourage the development of units affordable to low and very low-income households in the TOD.*

Consistent. The project Site is located within a TOD overlay district as stated. The Project would provide 899 new units, of which 45 units would be affordable. The project Site is located adjacent to commercial/office buildings to the east and is accessible to transit services provided along Hancock Avenue, approximately one-quarter mile east of the site. The Project would be consistent with Housing Goal #2 and Policy Action 2.5.

The Project would be consistent with the City of Murrieta General Plan, draft Housing Element 2021-2029 and applicable General Plan policies.

Density Bonus Waivers. The project applicant is proposing to utilize Government Code section 65915(e) to invoke waivers relating to multiple development standards. Waivers are not limited in number and must be granted by the City of Murrieta unless findings can be made relating to specific adverse impacts on health and safety, adverse impacts on historical resources or would

otherwise be illegal under state or federal law. Each waiver is identified and the justification for approving the waivers is discussed below.

Murrieta Municipal Code Section 16.34.40 B2: Adjacent Double-Loaded Parking Aisles.

Parking areas should not consist of more than two double-loaded parking aisles adjacent to each other.

Justification: The Project is designed to maximize efficiency for parking and units, including 5% of units for affordable households, while accounting for the layout and topographical constraints of the site. Application of this parking design standard would physically preclude construction of the Project.

Murrieta Municipal Code Section 16.34.40: Covered Parking
Fully enclosed garage(s)

Justification: The Project is designed to maximize efficiency for parking and units, including 5% of units for affordable households, while accounting for the layout and topographical constraints of the site. Additional garages would require a radical re-design of the Project; and therefore, application of this parking design standard would physically preclude construction of the Project.

Murrieta Municipal Code Section 16.04.40 B.1a.1: Uninterrupted Parking
There should be no more than an average of ten spaces of uninterrupted parking

Justification: The Project is designed to maximize efficiency for parking and units, including 5% of units for affordable households, while accounting for the layout and topographical constraints of the site. Application of this parking design standard would physically preclude construction of the Project.

Murrieta Municipal Code Section 16.34.070.b Table 39: Shade from Parking Lot Landscaping
The percentage of parking area required to be shaded shall be as follows: 50+ spaces 50% minimum.

Justification: The Project is designed to maximize efficiency for parking and units, including 5% of units for affordable households, while accounting for the layout and topographical constraints of the site. While future shade from landscaping is maximized given the layout of the planned parking areas, application of this parking design standard would physically preclude construction of the Project.

Murrieta Municipal Code Section 16.24: Hillside Development

Justification: The Project is designed to maximize efficiency for residential development, including 5% of units for affordable households, while accounting for the layout and

topographical constraints of the site. Further restrictions by applying the Hillside Development Standards would physically preclude construction of the Project.

Murrieta Municipal Code: **Alternative 1 Alignment of Monroe Avenue / Sparkman Avenue**

Justification: The Project is designed to maximize efficiency for residential development, including 5% of units for affordable households, while accounting for the layout and topographical constraints of the site. Due to California Department of Transportation competing requirements that prohibit Project access from Murrieta Hot Springs Road, the main Project entry is located on the new Monroe alignment at the intersection of Walsh Center Drive. The City's requirement on the previously planned Monroe alignment would physically preclude construction of the Project due to problems with existing residential and emergency vehicle access.
With approval of the above referenced waiver requests, n**o impact** would occur under threshold b.

Source: City of Murrieta General Plan 2035, July 2011
Source: City of Murrieta. Draft Housing Element Update 2021-2029, May 2021
Source: City of Murrieta. *General Plan 2035*, July 2011
Source: Density Bonus Waiver Letter, June 24, 2022

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

a, b) As referenced in the Murrieta General Plan Conservation Element, the City lies within the Temescal Valley Area within Riverside County, which is a mineral extraction area. Existing mineral extraction activities and commodities produced in this area primarily consist of clay, specialty sands, and specialty stone. Construction aggregate (crushed rock, sand, and gravel) also represents a valuable mineral commodity. Sand, gravel, and clay are generally used for fill

purposes, for the construction of roads and highways within urban and suburban development, and for other infrastructure purposes such as canals and aqueducts. The extent and significance of mineral deposits in the City is largely unknown. Per Exhibit 8-1 in the General Plan Conservation Element, the project Site is not shown as containing mineral resources.

The proposed Project would not require excavation of mineral resources nor would construction result in the loss of availability of any known regional or local mineral resources. Therefore, **no impact** to mineral resources would occur per thresholds a and b.

Source: City of Murrieta. *General Plan 2035*, July 2011

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XIII. <u>NOISE</u> – 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?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Material provided in this section was obtained in part from *The Terraces Noise Impact Study*, prepared by Birdseye Planning Group, LLC, September 2022, Appendix M.

Noise levels (or volume) are generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels

consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB, and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, L_{eq} is summed over a one-hour period.
The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. Two commonly used noise metrics – the Day-Night average level (L_{dn}) and the Community Noise Equivalent Level (CNEL) recognize this fact by weighting hourly L_{eq} over a 24-hour period. The L_{dn} is a 24-hour average noise level that adds 10 dB to actual nighttime (10:00 PM to 7:00 AM) noise levels to account for the greater sensitivity to noise during that time period. The CNEL is identical to the L_{dn}, except it also adds a 5-dB penalty for noise occurring during the evening (7:00 PM to 10:00 PM).

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called ground borne noise. Ground borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Ground-borne vibration related to human annoyance is generally related to velocity levels expressed in vibration decibels (VdB). However, construction-related groundborne vibration in relation to its potential for building damage can also be measured in inches per second (in/sec) peak particle velocity (PPV) (Federal Transit Administration, April 2018). Based on the FTA's *Transit Noise and Vibration Impact Assessment* and the California Department of Transportation's *Transportation-Related Earthborne Vibration, Technical Advisory* (September 2013) vibration levels decrease by 6 VdB with every doubling of distance.

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, libraries, and parks are most sensitive to noise intrusion; and therefore, have more stringent noise exposure standards

than commercial or industrial uses that are not subject to impacts such as sleep disturbance. Sensitive land uses generally should not be subjected to noise levels that would be considered intrusive in character. Therefore, the location, hours of operation, type of use, and extent of development warrant close analysis to ensure that noise sensitive receptors are not substantially affected by noise.

Source: Federal Transit Administration (FTA). *Transit Noise and Vibration Impact Assessment,* April 2018.
Source: California Department of Transportation. *Transportation-Related Earthborne Vibration, Technical Advisory*, September 2013.

City of Murrieta Noise Standards

Section 16.30.130 (A) of the Murrieta Municipal Code states the following:

Construction Noise. Violations of the noise ordinance are considered to occur when one more both of the following occur:

1. Operating or causing the operation of tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays;

2. Construction activities shall be conducted in a manner that the maximum noise levels at affected structures will not exceed 85-dBA at commercial structures and 75-dBA at single-family residences between the hours of 7:00 a.m. and 8:00 p.m. daily except Sunday's and legal holidays.

Operation Noise. Section 16.30.090 of the Murrieta Municipal Code limits exterior noise levels at single-family residential properties to 50-dBA from 7:00 a.m. to 10:00 p.m. and 45 dBA from 10:00 p.m. to 7:00 a.m. Noise levels are commercial properties are limited to 60 dBA from 7:00 a.m. to 10:00 p.m. and 55 dBA from 10:00 p.m. to 7:00 a.m.

Vibration. Section 16.30.030 of the Murrieta Municipal Code provides a definition of vibration and stating that the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration including, but not limited to, sensation by touch or visual observations of moving objects. The perception threshold shall be presumed to be a motion velocity of 0.01 in/sec over the range of one to one hundred (100) Hertz. This is provided in the Municipal Code as guidance for discussions regarding this issue.

Source: City of Murrieta Municipal Code Section 16.30.130 (A)
Source: City of Murrieta Municipal Code Section 16.30.090
Source: City of Murrieta Municipal Code Section 16.30.030

a) **Construction Noise**. Temporary, construction-related noise would occur during construction

of the proposed Project. The noise levels associated with the operation of common construction equipment are shown in Table 13. The noise levels are provided for reference purposes; not all equipment shown would be used for the proposed Project. Noise levels are expected to occur within the ranges shown.

Table 13
Typical Maximum Construction Equipment Noise Levels

Equipment Onsite	Typical Maximum Level (dBA) 25 Feet from the Source	Typical Maximum Level (dBA) 50 Feet from the Source	Typical Maximum Level (dBA) 100 Feet from the Source
Air Compressor	84	79	73
Backhoe	84	79	73
Bobcat Tractor	84	79	73
Concrete Mixer	85	78	72
Bulldozer	88	82	76
Jack Hammer	95	89	83
Pavement Roller	86	80	74
Street Sweeper	88	82	76
Man Lift	81	75	69
Dump Truck	82	76	70

Source: Noise levels based on FHWA Roadway Construction Noise Model (2006) Users Guide Table 1.
Noise levels based on actual maximum measured noise levels at 50 feet (Lmax).
Noise levels assume a noise attenuation rate of 6 dBA per doubling of distance.

Construction of the proposed improvements may utilize dozers, tractors, loaders, trucks and a variety of other types of equipment during each phase of the construction process. Noise levels associated with the equipment commonly used will range from 78 to 82-dBA at 50 feet from the source. A doubling of sound energy yields an increase of three decibels, so multiple pieces of equipment operating together may cause relatively small but noticeable increases in noise levels above that associated with one piece of equipment. Assuming two pieces of construction equipment, each producing a noise level of 82 dBA, are operating at one time on the site in proximity to one another, the worst-case combined noise level during the site preparation phase of construction is an estimated 85 dBA at a distance of 50 feet from the active construction area.

The nearest sensitive properties are the Vista Pointe Apartments located adjacent to east of the site at the Sparkman Court/Walsh Center Drive intersection. Multiple single-family residences are also located along Vista Murrieta Road. The nearest buildings are approximately 100 feet east of the property line and 150 north of the property line. Construction in proximity to the residences would include clearing/grubbing and grading for the building pads and stormwater basins, installation of subsurface utilities, construction of the buildings, paving and related improvements. Construction noise at the neighboring properties would be audible and could exceed the 75-dBA threshold at the residences depending on the equipment used and the duration of use.

As referenced, construction noise that exceeds 85-dBA at commercial structures and 75-dBA at single-family residences between the hours of 7:00 a.m. and 8:00 p.m. daily except Sunday's and legal holidays would be a violation of the noise ordinance. Based on the distance to the nearest sensitive property, it is possible that construction noise levels associated with operation of heavy equipment like a bulldozer could exceed 75-dBA noise limit defined in the noise ordinance during construction along the northern and eastern property lines. Implementation of the following mitigation measures are recommended to reduce or avoid adverse construction noise impacts during construction of the proposed Project:

MM NOI-1 Electrical power shall be used to run air compressors and similar power tools. Internal combustion engines should be equipped with a muffler of a type recommended by the manufacturer and in good repair. All diesel equipment should be operated with closed engine doors and should be equipped with factory-recommended mufflers. Construction equipment that continues to generate substantial noise at the project boundaries should be shielded with temporary noise barriers, such as barriers that meet a sound transmission class (STC) rating of 25, sound absorptive panels, or sound blankets on individual pieces of construction equipment. Stationary noise-generating equipment, such as generators and compressors, should be located as far as practically possible from the nearest residential property lines.

MM NOI-2 Limit the number of large pieces of equipment (i.e., bulldozers or concrete mixers) operating adjacent to receivers to one at any given time.

MM NOI-3 Provide notification to residential occupants adjacent to the project site at least two weeks prior to initiation of construction activities that could result in noise levels of 75-dBA at adjacent residences. This notification should include the anticipated hours and duration of construction and a description of noise reduction measures being implemented at the project site. The notification should include a telephone number to call to submit complaints associated with construction noise.

MM NOI-4 Construction contractors shall develop and implement a noise control plan that includes a noise control monitoring program to ensure sustained construction noise levels do not exceed 75 decibels at the adjacent multifamily residences located south of the site. The plan may include the following requirements:

- Contractor shall turn off idling equipment.
- Contractor shall perform noisier operation during the times least sensitive to receptors.
- All diesel equipment shall be operated with closed engine doors and shall be equipped with factory- recommended mufflers.
- Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or security staff facilities.

- For all noise-generating construction activities, additional noise attenuation techniques shall be employed as necessary to reduce noise levels. Such techniques shall include, but are not limited to, the use of sound blankets, noise shrouds and temporary sound barriers.

With implementation of measures NOI-1 through NOI-4, noise impacts during construction of each phase would be reduced to **less than significant**.

Source: Federal Transit Administrations (FTA). *Transit Noise and Vibration Impact Assessment* April 2018

Operational Noise

Exterior. Traffic is the primary noise source that would be generated by the proposed Project. Existing measured noise levels are with the compatible or conditionally compatible range referenced above, with the exception of the western portion of the project site. Noise levels in this area are dominated by Interstate 15 and measured noise levels reach or slightly exceed the conditionally compatible limits. Thus, whether a traffic-related noise impact would occur is based on whether project traffic, when added to the existing traffic, would cause the Leq to noticeably increase (+3 dBA) or exceed the 55-70 dBA conditionally compatible exterior standard for residential properties referenced in the Murrieta General Plan Noise Element.

The adjacent roadway network (Interstate 15, Murrieta Hot Springs Road, Vista Murrieta Road and Sparkman Court (Monroe Avenue) was modeled using the Federal Highway Administration Traffic Noise Model (TNM) version 2.5 software to estimate project related traffic noise impacts. The model calculates traffic noise at receiver locations based on traffic volumes, travel speed, mix of vehicle types operating on the roadways (i.e., cars/trucks, medium trucks and heavy trucks) and related factors. Traffic volumes and vehicle mix on obtained during the monitoring period were used to calibrate TNM. The 15-minute counts were multiplied by four to obtain hourly traffic counts. The model was calibrated to calculate noise levels that are +/- 2 dBA those measured on-site (Birdseye Planning Group, January 2021). Traffic volumes along Murrieta Hot Springs Road and Vista Murrieta Road are based on 24-hour counts collected by the City of Murrieta (2018). To estimate the hourly Leq, 10 percent of the 24-hour volumes were used for modeling purposes.

Traffic volumes used for the impact analysis were obtained from the Traffic Impact Analysis (Linscott, Law and Greenspan, Transportation Engineers, Inc., January 2022). The project is estimated to generate approximately 384 morning peak hour trips with all trips assumed to distribute east and south to exit the project site. The 384 trips were distributed within the modeled road network as were cumulative trips on the Monroe Avenue extension and Vista Murrieta Road to determine the change in noise levels associated with the project at neighboring sensitive properties.

As stated, peak hour project trips were added to baseline conditions to determine whether the Leq at the following receivers would noticeably change or exceed the conditionally compatible criteria for the existing single-family residences located in proximity to the site or the at the project site. The following receiving properties were modeled:

1. Vista Pointe Apartments located at 46080 Walsh Center Drive east of the project Site;
2. Residence located adjacent to and north of the site at 25200 Monroe Avenue;
3. Residence located northwest Vista Murrieta Road/Jackson Road intersection;
4. Project units at northwest corner of the site;
5. Carriage units located near the center of the site along the western boundary;
6. Carriage units located at the southwestern corner of the site; and
7. Project units along the proposed extension of Monroe Avenue southwest of Vista Murrieta Road and Monroe Avenue when extended.

As stated, traffic is the primary noise source that would be generated by the proposed Project. Existing measured noise levels are within the compatible and conditionally compatible range at receivers proximal to the site. Noise levels along the western project boundary are on the line between conditionally compatible and normally incompatible. Thus, whether a traffic-related noise impact would occur is based on whether project traffic, when added to the existing traffic, would cause the Leq to noticeably increase (+3 dBA) or exceed the 55-70 dBA conditionally compatible exterior standard for residential properties referenced in the Murrieta Municipal Code. Because of the baseline conditions along the western project boundary, impacts at the units facing Interstate 15 are not considered significant if interior standards can be met.
Any noise impacts associated with the project would be concentrated at the above referenced receptors along Vista Murrieta Road and the Monroe Avenue extension. Existing noise levels are shown in Table 14.

Table 14
Modeled Noise Levels

Receptor	Existing Leq	Exceed Standard?	With Project Leq	dBA Change	Significant Impact
Receiver 1	57.6	No	60.4	+2.8	No
Receiver 2	55.8	No	58.4	+2.6	No
Receiver 3	58.1	No	59.1	+1.0	No
Receiver 4	70.3	Yes	72.0	+1.7	No
Receiver 5	64.3	No	67.0	+2.7	No
Receiver 6	71.1	Yes	71.2	-0.1	No
Receiver 7	57.9	No	58.4	+0.5	No

A Project related noise impact would occur under conditions where the project causes the Leq to exceed the noise compatibility criteria shown in Table 2. As shown in Table 7, existing traffic related noise levels do not exceed the standards at existing receivers. Noise levels do exceed 70 dBA at the northwest and southwest corners of the site under existing conditions. The noise level at Receiver 5 is within the compatibility criteria; however, the elevation of is location is proximal to the adjacent freeway elevation which provides some shielding. While noise levels at Receivers 1, 2, 3 and 7 would increase, with Project conditions would meet the normally or conditionally compatible criteria. Noise levels at Receivers 4, 5 and 6 would increase as a result

of traffic on the Interstate 15 on-ramp and mainline north of the ramp. Exterior traffic noise levels at Receivers 4 and 6, which represent the units along the western property boundary, would exceed 70 dBA; and thus, require abatement to ensure the interior standards are met. Implementation of Mitigation Measure NOI-5 would avoid potential impacts associated with interior noise levels.

MM NOI-5: All windows and entry doors facing Murrieta Hot Springs Road, Monroe Avenue and Interstate 15 shall have the following minimum Sound Transmission Class (STC) ratings:

- Building number 2 should have a minimum STC of 26;
- Buildings 3 and 4 should have a minimum STC of 27;
- Building 5 should have a minimum STC of 28;
- Building 6 should have a minimum STC of 31.

Interior Traffic Noise. California Energy Code Title 24 standards specify construction methods and materials that result in energy efficient structures and up to a 30 dBA reduction in exterior noise levels (assuming windows are closed). This includes operation of mechanical ventilation (e.g. heating and air conditioning), in combination with standard building construction that includes dual-glazed windows with a minimum Sound Transmission Class (STC) rating of 26 or higher. When windows are open, the insertion loss drops to about 10 dBA.

As stated above, Section 16.30.100 (B) of the Municipal Code limits interior noise levels in multifamily residential properties to 45-dBA from 7:00 a.m. to 10:00 p.m. and 40-dBA from 10:00 p.m. to 7:00 a.m. Section 16.30.090 of the Murrieta Municipal Code limits exterior noise levels at residential (single-family) properties to 50-dBA from 7:00 a.m. to 10:00 p.m. and 45-dBA from 10:00 p.m. to 7:00 a.m. It is unknown whether the existing residences were constructed consistent with current Title 24 standards and the interior decibel reduction may be less than the 30-dBA referenced above. However, noise levels with operation of the Project would not exceed the compatibility criteria as stated. Regardless of the insertion loss associated with the building structures, interior noise levels at neighboring residences would not be adversely affected by Project related traffic.

Noise levels at project units constructed interior to the site and along Monroe Avenue would be within the compatibility criteria. As stated, the exterior walls of those units facing Interstate 15 would require the use of building techniques and materials to provide an STC of 35 to ensure both day and nighttime interior standards are met.

Construction of Phase II would involve the use of heavy equipment and generate noise levels in the range of 85 dBA at 50 feet as described above. Phase I units would be occupied during the construction of Phase II; thus, it is possible that tenants would be exposed to construction noise. With implementation of **Mitigation Measures NOI-1 through NOI-5** as appropriate, impacts associated with construction and operation of Phase I and II would be less than significant.

Source: Federal Transit Administrations (FTA). *Transit Noise and Vibration Impact Assessment,*

April 2018
Source: Birdseye Planning Group, LLC, *The Terraces Project Noise Study*, September 2022 (Appendix M).

b) Vibration is a unique form of noise because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from truck pass-bys. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as vibration rapidly diminishes in amplitude with distance from the source. In the U.S., the ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB).

The vibration velocity level threshold of perception for humans is approximately 65 VdB (i.e., vibration velocity of 0.01 inches per second). A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. There were no activities observed in the area during monitoring that generate perceptible groundborne vibration.

Construction activity on the project Site would be temporary and any vibration would not persist for long periods. Assuming vibration levels would be simlar to those associated with a large bulldozer, typical groundborne vibration levels could range from 87 VdB at 25 feet, 81 VdB at 50 feet, and 75 VdB at 100 feet, based on the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment* (September 2018) as shown in Table 15.

Construction activities that typically generate substantial groundborne vibration include deep excavation and pile driving. Based on the proposed scope of improvements, this type of construction activity would not occur on the project Site. General construction associated with the Project would be confined to the project Site and surrounding road corridors and consist of grading, excavations for building footings and installation of subsurface infrastructure. It would be temporary in duration. The closest residences to the site are located approximately 100 to 150 feet north and east of the Site. Based on the information presented in Table 8, vibration levels could be approximately 75 VdB at the nearest receiver during construction assuming a large bulldozer is the heaviest piece of equipment used during grading or site clearing.

As discussed, 100 VdB is the threshold where minor damage can occur in fragile buildings. There are no fragile buildings located in proximity to the construction site. Further, vibration levels would be under the threshold associated with structural damage. Thus, structural damage is not expected to occur as a result of construction activities associated with the proposed Project. Impacts would be **less than significant**.

Table 15
Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	91	85	83	82	79
Loaded Trucks	90	84	82	81	78
Jackhammer	94	88	86	85	82
Loader	86	80	78	77	74

Source: FTA, 2018

Source: Federal Transit Administrations (FTA). *Transit Noise and Vibration Impact Assessment* September 2018
Source: *The Terraces Project Noise Study*, prepared by Birdseye Planning Group, LLC, September 2022 (Appendix M).

c) French Valley Airport is located approximately 3.5 miles northeast of the site. There are no private airstrips in proximity to the site. The proposed Project is located outside the Airport Land Use Compatibility Zone. While some overflights may occur and be audible, residents would not be adversely affected by aircraft noise. **No impact** would occur under this threshold.

Source: Riverside County Airport Land Use Compatibility Plan Policy Document, Map FV-1, January 2012.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. <u>POPULATION AND HOUSING</u> — 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 roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. <u>POPULATION AND HOUSING</u> — Would the project:				
existing people or housing, necessitating the construction of replacement housing elsewhere?				

a) The proposed Project consists of 899 apartment units and related infrastructure improvements. The proposed project Site is vacant; thus, no residences would need to be removed to accommodate the project. The Project would be constructed consistent with the Office/TOD Overlay zoning designation and allowable density. The Project would not induce population growth directly as a result of new development or indirectly through the extension of unplanned utility infrastructure to a currently unserved area. All improvements would occur on the project Site and adjacent streets (i.e., Vista Murrieta Road and Monroe Avenue). A less than significant impact would result from project implementation per threshold a.

b) The project Site is vacant. Project implementation would not result in the removal of any residences. No residents would be displaced nor would removal of the existing housing require the construction of replacement housing elsewhere. **No impact** would occur under threshold b.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. <u>PUBLIC SERVICES</u>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. PUBLIC SERVICES				
times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

a (i-v) The Murrieta Fire & Rescue Department provides fire and emergency medical services to the City of Murrieta. Fire Station 1 is the nearest station to the project Site. It is located at 41825 Juniper Street approximately one mile west of the site. Murrieta Fire & Rescue has a total response time goal within the City of 6:04 minutes for medical emergencies and an effective response force (all resources dispatched to arrive at scene) for fire incidents of 10:24 minutes.

Given the nature of the Project, demand for fire and emergency service may increase over existing conditions. The project is consistent with the land use designation for the site and would not increase the population beyond what was anticipated in the Murrieta General Plan. Further, the Project would be designed and constructed consistent with applicable codes and standards for access and fire suppression infrastructure. The payment of impact fees would fund any necessary improvements to the Murrieta Fire & Rescue infrastructure to maintain or improve the efficiency of department operations. The City is contemplating the construction of a new fire station north of Clinton Keith Road to improve response times in that area. The Project would not require the construction of a new fire station to maintain service ratios within the service area served by Fire Station 1.

Law enforcement services are provided by the City of Murrieta Police Department. The Police Department operates from the headquarters building located at 2 Town Square approximately one mile northwest of the project Site. The Department's goal is to reach and maintain police officer and civilian support employee staffing levels to effectively and efficiently address public safety needs. Established response times range from 6 minutes for Priority 1 calls to 35 minutes for Priority 3 calls. The Project may generate demand for police services beyond existing conditions; however, the Project is consistent with the land use designation for the site and would not increase the population beyond what was anticipated in the Murrieta General Plan. The Project would not require the construction of new or expanded Police Department facilities.

The payment of impact fees would fund any necessary improvements to the Murrieta Police Department required to maintain or improve the efficiency of department operations.

The nearest school to the project Site is Murrieta Mesa High School located at 24801 Monroe Avenue approximately ½ mile north of the site. Shivela Middle School is located at 24515 Lincoln Avenue approximately two miles north of the site. The proposed Project would likely provide housing for school-aged children; thus, affecting demand for school services. Based on generation rates provided in the City of Murrieta General Plan 2035 Final Environmental Impact Report (2011), the number of K-12 students generated by the Project would range from a low of 423 to a high of 1,620 based on the generation rates shown in Table 16. The applicant would be required to pay impact fees to each of the affected school districts to support ongoing development of school facilities.

Table 16
Student Generation Rates

Grade	Student Generation Factor
K-5	0.16 – 0.9
6-8	0.1517 – 0.3
9-12	0.16 – 0.6071

Source: Murrieta General Plan 2035 Final EIR, July 2011

The Murrieta Library is located at 8 Town Square approximately one mile northwest of the site. The project would increase the population of Murrieta; however, addition of new residents would not affect demand for library services city-wide. No new or expanded library services would be required.

As stated, Meadowridge Park is the closest park from the project Site. The Project would provide recreational amenities on-site which would include a club house and outdoor play space. The increase in population living in the area is not expected to impact demand for park facilities city-wide. The Project would not remove park or recreational facilities that would require replacement elsewhere.

The Project would not require the provision of new or physically altered governmental facilities to maintain acceptable levels of service. As noted, an increase in demand for fire, police or other government services may occur. This would be a **less than significant** impact.

Source: City of Murrieta. Fire Department website, accessed November 2021
Source: City of Murrieta. Police Department website, accessed November 2021
Source: Murrieta Valley Unified School District website, access November 2021.
Source: Source: Site observations and plans, November 2021

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. RECREATION --				
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?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a-b) The Project would be a 899-unit apartment complex providing a variety of on-site recreational amenities including two pool areas, a tot lot, club house, fitness, volleyball court, and walking trails. A proposed dog park would be located northeast of the future Monroe Avenue connection and a mini park would be constructed on a City-owned parcel adjacent to the site on the west side of Sparkman Court. The dog park and mini park can be used by Project residents and neighbors and are intended to create walking opportunities. Further, the Project would provide sidewalk connectivity to off-site parks. The nearest park is Meadowridge Park located approximately ½ mile to the northeast.

The General Plan Recreation and Open Space Element (2014) states that the City of Murrieta has 467.24 acres of parkland in 53 City parks. This total does not include joint use school facilities. The City has adopted a standard of 5 acres of parkland per 1,000 residents. As of June 2009, the City had a deficit of 34 acres according to this standard. The City of Murrieta Parks Master Plan (June 2009) estimated that 240.3 acres of parkland would be needed for a population of 120,000 to meet identified needs for recreational facilities, in addition to what is needed to meet the parkland standard.

As stated, the Project would provide on-site recreational amenities for the residents. However, it is likely that residents would also use off-site facilities such as Alta Murrieta Sports Park which is located approximately 0.7 miles northeast of the site. The payment of impact fees by the Project applicant would contribute to funding available for improvements to existing park resources. A **less than significant** impact would occur under this threshold.

Source: City of Murrieta Parks and Recreation Master Plan (June 2009);
Source: City of Murrieta General Plan 2035 Recreation and Open Space Element (2014)

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. <u>TRANSPORTATION</u> -- Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

a) The information provided in this section is summarized from the Traffic Impact Assessment and Vehicles Miles Traveled Analysis prepared for *The Terraces Apartment Project*, Linscott, Law and Greenspan, Transportation Engineers, Inc., December 2022 (Appendix N).

a) The following summarizes project impacts to existing bicycle/trail, transit and pedestrian facilities in proximity to the project Site.

Bicycle and Trail Facilities. There are no existing striped bicycle lanes on Vista Murrieta Road or Sparkman Court. Per Exhibit 5-4 of the General Plan Circulation Element, the proposed extension of Monroe Avenue adjacent to the project site and Murrieta Hot Springs Road are both shown to have a proposed striped Class I bicycle lane. The Project may provide a striped Class I bicycle lane along Monroe Avenue. No trails are located within or planned for construction within the project area. The Project will not affect existing bicycle facilities, implementation of planned bicycle facilities or use of existing or planned trail facilities.

Transit Facilities. As stated, Riverside Transit Agency (RTA) provides service to the general area with Routes 23. The nearest transit stop is located approximately one-quarter mile east along Hancock Avenue. The Project will not affect existing transit service along as currently provided.

Pedestrian Facilities. Sidewalks are located on both sides of Murrieta Hot Springs Road and along the east side of Sparkman Court. Pedestrians are able to cross Sparkman Court using the existing crosswalk at the Murrieta Hot Springs Road intersection located adjacent to and southeast of the site.

Sidewalk, curb and gutter improvements would be required for the extension of Monroe Avenue and improvements to Vista Murrieta Road. This would provide greater off-site connectivity for pedestrians. The applicant would also be required to install a new signal at the Sparkman Court (Monroe Avenue)/Murrieta Hot Springs intersection and pay fair share cost towards the installation of a new traffic signal at the intersection of Hancock Avenue and Walsh Center Drive. The Project will have no adverse impacts to pedestrian facilities. **No impact** would occur under this threshold.

Source: Traffic Impact Assessment prepared for *The Terraces Apartment Project*, Linscott, Law and Greenspan, Transportation Engineers, Inc., December 2022

b) Senate Bill 743 (SB 743) was approved in 2013 and revised the method for assessing transportation impacts under CEQA. The Office of Planning and Research (OPR) has recommended the use of vehicle miles travelled (VMT) as the required metric to replace the automobile delay-based Level of Service (LOS). The VMT assessment is required to satisfy CEQA guidelines that utilize VMT as the required metric to determine transportation impacts. The VMT assessment (Linscott, Law and Greenspan Traffic Engineers, Inc.) was based on the criteria outlined in the *City of Murrieta Traffic Impact Analysis Guidelines*, *March 2021.*

Because the projected VMT is greater than what was allocated to the land use designation for the site assumed in the General Plan, a complete VMT analysis and forecasting was performed using the City of Murrieta Transportation Analysis Model (MTAM) to determine if the project would have a significant VMT impact. This analysis includes "Project Generated VMT" and "Project Effect on VMT" estimates for the Project Transportation Analysis Zone (TAZ) under the following scenarios:

- Baseline Conditions
- Baseline Plus Project
- Cumulative No Project
- Cumulative Plus Project

A full VMT analysis utilizing MTAM was conducted to determine the following:

- Project-Generated VMT per Service Population; and
- Link-Level Boundary VMT per Service Population.

The data are compared to city-wide averages which are the thresholds for determining the significance of VMT impacts. As shown in Table 17, the baseline project-generated VMT per

Service Population is 42.25% below the City average VMT per Service Population threshold. The cumulative project-generated VMT per Service Population is 34.05% below the City average VMT per Service Population threshold. The proposed project will not exceed the City of Murrieta baseline VMT per Service Population of 38.91.

Table 17
Project Generated VMT per Service Population

Description	Project	City of Murrieta	Compared to Thresholds (City of Murrieta)
Baseline	22.47	38.91	42.25% Lower
Cumulative	25.66	38.91	34.05% Lower

As shown in Table 18, the proposed Project baseline link-level boundary VMT per Service Population is 0.85% below the "No Project" threshold. The proposed Project cumulative link-level boundary VMT per Service Population is 1.48% below the "No Project" threshold. The proposed project link-level boundary VMT per Service Population will not increase under the "Plus Project" condition when compared to the "No Project" condition. Based on the data presented in Table 17 and 18, the project VMT impact would be **less than significant.**

Table 18
Link-Level Boundary VMT per Service Population

Description	Project	City of Murrieta	Compared to Thresholds (City of Murrieta)
Baseline	16.31	16.45	0.85% Lower
Cumulative	16.68	16.93	1.48% Lower

Source: Vehicle Miles Traveled Analysis prepared for *The Terraces Apartment Project*, Linscott, Law and Greenspan, Transportation Engineers, Inc., December 2022 (Appendix M)

c) The main Project entrance will be at the intersection of Monroe Avenue and Walsh Center Drive aligning as a four-way intersection approximately 1,100 feet northwest of Murrieta Hot Springs Road. Secondary access will be provided from the project's Vista Murrieta Road driveway access (one ingress lane and two egress lanes) towards existing Vista Murrieta paved improvements approximately 2,700 feet to the northeast. An additional project access driveway is proposed on Monroe Avenue between Walsh Center Drive and Vista Murrieta Road. A 28-foot wide, paved and gated "emergency only" vehicle access will be constructed along the southeastern Site boundary exiting onto Murrieta Hot Springs Road just east of the Interstate 15 northbound on-ramp.

The Project will be required to construct full width Monroe Avenue improvements from the proposed interim cul-de-sac to northwesterly of the existing Eastern Municipal Water District (EMWD) wastewater lift station and then less-than-full width improvements (due to the location of the wastewater lift station) will be required from northwesterly of the EMWD lift station to the project's southeasterly property line. The Project will also be required to construct

ultimate half width frontage improvements (per City Street Standards) plus a twelve foot (12') paved lane and a ten foot (10') graded shoulder opposite the centerline, from the project's southwesterly property line to the project's northeasterly property line, along Vista Murrieta Road. The Project shall pay an in-lieu fee for ultimate improvements required for the Monroe Avenue and Vista Murrieta ultimate connection. Or, the project has the option to construct the ultimate connection improvements. The Project shall pay a fair share cost towards the installation of a new traffic signal at the intersection of Hancock Avenue and Walsh Center Drive. Additionally, the Project will be required to install a new traffic signal at the intersection of Sparkman Court (Monroe Avenue) and Murrieta Hot Springs Road.

d) The proposed Project would provide access to the site for use by emergency vehicles via the main entrance from Sparkman Court (Monroe Avenue), a secondary entrance along Vista Murrieta Road and an EVA only access driveway along the south side of the site via Murrieta Hot Springs Road. The Project would make road improvements that facilitate emergency access in proximity to the site. The Project would not alter emergency access routes. The access driveways would provide access for residents, vendors and emergency service vehicles. The Project would not impair or otherwise result in inadequate emergency access to the area. **No impact** would occur.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resource 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 Historic Places, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k), or	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:				
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 Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) As stated in Section V, Cultural Resources, the EIC records search identified 48 cultural resources studies that were conducted within a 0.5-mile radius of the project APE. Six of the studies (RI-02015, RI-02877, RI-03896, RI-07372, RI-07404, and RI-10133) included all or portions of the project APE. None of studies identified cultural resources within or adjacent to the project APE. Ten cultural resources were identified within a 0.5-mile radius of the project APE. None of these resources is within the project APE. Seven of the ten resources are historic built environment resources, one is a historic refuse scatter and two of the resources are prehistoric in origin. There are four remnant concrete driveways and ten building foundations on the central and northern portions of the APE, including five slab foundations and five stem-wall foundations. These are not considered historic built environment resources; thus, no historic resources would be affected by the Project. **No impact** would occur under this threshold.
The City of Murrieta is required per AB 52 to notify Native American Tribes that have requested consultation on discretionary projects being proposed with the City. A copy of the Cultural Resource Report was provided as part of the consultation process with updates to this section provided at completion of the consultation process.

b) The Project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process and requires lead agencies to provide notification of proposed projects to California Native American Tribal representatives that have requested such notifications. The City of Murrieta received three responses as a result of the notification letters mailed March 31, 2022. Of the responses received, all three Tribes,

Pechanga Band of Luiseño Indians, Soboba Band of Luiseño Indiansand Rincon Band of Luiseño Indians, responded with their input on potential Project impacts to TCRs and requested formal consultation. As a result of the consultation process conducted separately with both Tribes, it was determined that through implementation of **MM-TCR-1 through MM-TCR-10**, impacts to potentially significant TCRs as determined by the Lead Agency would be reduced to less than significant with mitigation incorporated.

Prior to the commencement of construction activities for all phases of project implementation, the project applicant/owner/developer shall retain a qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology, is approved by the City of Murrieta – Planning Division, and has the experience and is well-acquainted with the history of the ancestral tribes geographically connected to the Project site referred to here on as "Principal Investigator/Archaeologist".

NOTE: For purposes of proper implementation of the following mitigation measures, the term "Consulting Tribes" is defined pursuant to PRC 21080.3.1 as California Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project site that may have expertise concerning their tribal cultural resources and have requested and participated in formal AB 52 consultation for the Project. The tribes that fulfill this definition for this Project include the Pechanga Band of Luiseño Mission Indians, Soboba Band of Luiseño Indians and the Rincon Band of Luiseño Indians. The selected Principal Investigator/Archaeologist, and tribal cultural resources monitor(s) shall be retained to implement the following mitigation measures:

MM TCR-1: Cultural Resource Monitoring Plan. At least thirty (30) days prior to the submittal of the final grading plans to the City, the Project Applicant, Principal Investigator/Archaeologist, Project Tribal Cultural Monitor(s), and designated project planner from the City of Murrieta will meet and develop a Cultural Resources Monitoring Plan (CRMP or Plan) for the treatment and mitigation of cultural resources during Project development. Treatment of the resource(s) will be consistent with the terms and provisions of the mitigation and CRMP and may be amended by the parties as agreed upon. Prior to its finalization, the Principal Investigator/Archaeologist will circulate the draft CRMP to the assigned planner and Consulting Tribes for review and comment. The final document will include methods and practices and other appropriate issues that may be relevant to the culturally appropriate treatment of the resources. All parties are required to withhold public disclosure of information related to the treatment and mitigation of cultural resource(s) pursuant to the specific exemption set forth in CGC para. 6254(r). The Plan is to outline a program of treatment and mitigation of the known and inadvertently found cultural resources during ground-disturbing phases (throughout the duration of the Project. This plan will define the process to be followed for the identification and management of cultural resources in the Project area during construction. Existence of and importance of adherence to this Plan should be stated on all Project site plans intended for use by those conducting the ground-disturbing activities. The Plan will also include the conditions under which

monitoring is required pursuant to **SC CUL-3 and SC CUL-6 and MM TCR-3** and the manner of facilitation. The CRMP will include/address each of the following:

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 Tribes and Principal Investigator/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 resource's 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;
h) details of the relocation and controlled grading operations.

MM TCR-2: Worker Environmental Awareness Program. All construction personnel and monitors who are not trained archaeologists or tribal cultural monitors shall be briefed regarding inadvertent discoveries prior to the start of construction activities. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide the construction personnel with brief review of the cultural sensitivity of the project and the surrounding area; what resources could be potentially identified during earthmoving activities; the requirements of the monitoring program; the protocols to follow during the construction of the project and explain the importance of and legal basis for the protection of significant archaeological and tribal cultural resources, and who to contact if and when the cultural resources are identified. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor, archaeological, and tribal cultural monitor(s).

MM TCR-3: Native American Monitoring. At least 30 days prior to issuance of a grading permit the applicant/owner/developer shall contact all Consulting Tribes with notification of the approximate commencement of ground-disturbing activities. The applicant/owner/developer shall secure agreements with the Consulting Tribes for Tribal Monitoring. The agreement shall include, but not limited, outlining provisions and requirements for addressing the treatment of cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional Tribal monitors during ground disturbing activities. The copy of the signed agreement shall be provided to the City Planner and Building official prior to issuance of the first grading permit. The Native American Monitor has the authority to temporarily divert and stop earth moving activities in the event that suspected cultural resources are unearthed. The Native

American Monitor(s) will be responsible for maintaining weekly monitoring logs, the Developer shall identify an individual on site to sign the weekly logs.

MM TCR-4: Inadvertent Discovery Clause. If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribes. Tribal cultural resources are excluded from the definition of unique cultural resources as those resources are defined by the tribal values ascribed to them by their affiliated communities. Treatment of tribal cultural resources inadvertently discovered during the project's ground-disturbing activities shall be subject to the consultation process required by state law and AB 52.

a) All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the Project Applicant, the Principal Investigator/Archaeologist, the Tribal Representative(s), and the Community Development Director to discuss the significance of the find.

b) At the meeting, the significance of the discoveries shall be discussed and after consultation with the Tribal Representative(s) and the Principal Investigator/ Archaeologist, a decision shall be made, with the concurrence of the City Planner, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

c) Further ground disturbance, including but not limited to grading, trenching etc., 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 Tribal Monitors if needed.

d) Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the Consulting Tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/ Mitigation Measures.

e) 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 Principal Investigator/Archaeologist, in consultation with the Consulting Tribes, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

f) Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Project Applicant and the Consulting Tribes cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Planner for decision. The City Community Development Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Principal Investigator/Archaeologist and shall take into account the cultural and religious principles and practices of the Consulting Tribes. Notwithstanding any other rights available under the law, the decision of the City Planner shall be appealable to the City Planning Commission and/or City Council. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM TCR-5: Final Disposition. In the event that Native American Cultural resources are identified during Project earthwork and ground-disturbing activities, the following procedures shall be carried out for final disposition; One or more of the following treatments, in order of preference, shall be employed in consultation with the Consulting Tribes. Evidence of such shall be provided to the City of Murrieta.

1. Preservation-In-Place of the cultural resources. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resource(s).

2. Reburial of the cultural resource(s) on the Project property. The Preservation Site(s) will be located within the Project site development envelope of the Project, outside of any known and identified cultural resource sites. The measures for reburial shall include, at least, the following: 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, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

3. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility

stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM TCR-6: Relocation of Resources. Should any features be uncovered on site as determined by the Consulting Tribes, they shall work with the Principal Investigator/ Archaeologist, the developer, and the grading contractor or appropriate personnel to determine a reasonable methodology for relocating any found features. The current Department of Parks and Recreation (DPR) forms, if any, shall be updated, detailing which features (if any) were relocated, the process taken, and updated maps provided documentation of the features' new location. The site record should clearly indicate that the features are not in their original location and why they were relocated.

MM TCR-7: Controlled Grading and Grubbing. Should any areas of concern be identified as determined by the Principal Investigator/Archaeologist and the Consulting Tribes. The identified area shall be inspected by the Principal Investigator/Archaeologist and Native American monitor prior to initiating grading for those areas to determine the extent and controlled grading process. Other areas which may require controlled grading shall be determined by the Principal Investigator/Archaeologist and the Native American monitor(s) based on the results and soil types identified during grading. Should any changes be needed, an updated exhibit will be produced and approved by all parties prior to any ground disturbance in the newly identified area.

MM TCR-8: Phase IV Report. Prior to final inspection, the Principal Investigator/Archaeologist is to submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with the Planning 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 Planning Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Planning 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 Tribes' Cultural Resources Departments.

MM TCR-9: Human Remains. In the event that human remains are inadvertently encountered during construction activities, all work is to immediately stop and no further disturbance shall occur in the area until the County Coroner has made the necessary findings as to origin. The remains and associated resources shall be treated in

accordance with state and local regulations that provide requirements regarding the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to immediately notify the Native American Heritage Commission (NAHC). The NAHC must immediately notify those persons it believes to be the most likely descendant (MLD) . The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

MM TCR-10: Non-Disclosure. 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).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
development during normal, dry and multiple dry years?				
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a, c) Wastewater within the project area is collected and conveyed to one of two treatment plants operated by the Eastern Municipal Water District (EMWD). EMWD provides wastewater services to approximately 239,000 customers within its service area and 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 facilities closest to the project area is the Perris Valley Regional Water Reclamation Facilities (RWRF). The Perris Valley RWRF is the largest of the four treatment plants operated by EMWD and has a daily treatment capacity of 22 million gallons per day (MGD) with a build out capacity of 100 MGD. Currently, the facility treats approximately 13.8 MGD. Assuming wastewater is approximately 60% of potable water demand, the project would generate approximately 19,000 gallons per day. This is 0.0009% of the daily treatment capacity of the Perris Valley RWRF. EMWD has provided a will serve letter for wastewater.

The Project would not require relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, natural gas, or telecommunications facilities or expansion of existing facilities. No impacts associated with the construction or relocation of

public utilities would occur. Impacts related to the provision of utility services would be **less than significant**.

Source: Eastern Municipal Water District, Perris Valley Regional Water Reclamation Facility Factsheet, October 2016.
Source: California Emission Estimator Model, 2020.4.0
Source: Eastern Municipal Water District Will Serve Letter, June 23, 2021.

b) EMWD provides potable water, recycled water, and wastewater services to an area of approximately 555 square miles in western Riverside County. EMWD is both a retail and wholesale agency, serving a retail and wholesale population of approximately 800,000. The majority of EMWD's supplies are imported water purchased through MWD from the State Water Project (SWP) and the Colorado River Aqueduct (CRA). Imported water is delivered to EMWD either as potable water treated by MWD, or as raw water that EMWD can either treat at one of its two local filtration plants or deliver as raw water for non-potable uses. EMWD's local supplies include groundwater, desalinated groundwater, and recycled water. Groundwater is pumped from the Hemet/San Jacinto and West San Jacinto areas of the San Jacinto Groundwater Basin. EMWD owns and operates two desalination plants that convert brackish groundwater from the West San Jacinto Basin into potable water. EMWD also owns, operates, and maintains its own recycled water system that consists of four Regional Water Reclamation Facilities and several storage ponds spread throughout EMWD's service area that are all connected through the recycled water system. Per the 2020 Urban Water Master Plan, EMWD has a combined retail and wholesale demand and supply forecast of 208,900-acre feet in 2025 and 214.900-acre feet in 2030. Water supply is expected to meet demand forecast through the 2040 UWMP planning horizon.

Agencies were required to demonstrate compliance with the 2020 interim water use target provided in the 2015 UWMP. In 2015, EMWD's gross water use was 78,937-acre feet. EMWD's retail population in 2015 was estimated at 546,146. Therefore, EMWD's actual 2015 per capita use was 129 GPCD, which is well below the 2015 interim water use target of 187 GPCD. In the 2020 UWMP, agencies are required to demonstrate compliance with their confirmed 2020 Target GPCD. EMWD estimated its gross water use and service area populations using the methods described for previous years. EMWD did not make any optional adjustments to its 2020 gross water use. The actual 2020 GPCD was 125 GPCD; the target was 176 GPCD. Thus, the actual use was below the target.

CalEEMod 2020.4.0 estimated the project would use approximately 76.8 million gallons of water annually (210,411 gallons per day)(assuming a reduction of 20% over business as usual). EMWD provided a will serve letter (June 23, 2021) indicating that water supplies are available to support the Project. Water demand associated with the Project would not exceed projected demand for the service area or necessitate expanding existing entitlements. A **less than significant** impact would occur under this threshold.

Source: Eastern Municipal Water District, *2015 Urban Water Management Plan Update,* June 2020,

Source: California Emission Estimator Model, 2020.4.0.
d) The proposed Project would generate construction/demolition waste (CDW) as well as ongoing domestic waste. Solid waste collection and disposal services in Murrieta are provided by Waste Management, Inc. Solid waste collected in the Murrieta area is disposed of in the El Sobrante Landfill located in Corona, California. The El Sobrante Landfill was opened in 1986 and has sufficient capacity to operate for approximately 45 years. The landfill covers approximately 1,322 acres with a permitted operating footprint of 468 acres. The facility processes 2 million tons annually and has a remaining capacity of approximately 209 million cubic yards (Waste Management, 2014).

It is presumed that construction waste would be comprised of concrete, metals, wood, landscape and typical domestic material. The California Integrated Waste Management Act (CIWMA) of 1989 mandated that all cities and counties in California reduce solid waste disposed at landfills generated within their jurisdictions by 50%. AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that no less than 75% of solid waste be generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. CDW associated with the proposed project will be recycled to the extent practicable with the remainder sent to a landfill. The construction debris would be processed and recycled or sent to the landfill.

CalEEMod 2020.4.0 estimates that the proposed Project would generate approximately 103 tons of solid waste material annually. Assuming 75% is recycled, a total of 564 pounds daily would go to the landfill. Assuming the El Sobrante Landfill receives the waste, this would increase the total volumes going to landfill daily by less than 1 percent. Unlike commercial businesses, multifamily projects are not required to recycle organic waste; however, it is assumed that landscape contractors would collect and dispose of landscape waste for composting purposes. A **less than significant impact** would occur under this threshold.

Source: Waste Management, Inc. El Sobrante Landfill Fact Sheet, 2014.
Source: California Emission Estimator Model, 2020.4.0.

e) The applicant and project contractor will comply with all local, state, and federal requirements for integrated waste management (e.g., recycling, green waste) and solid waste disposal as required by the CIWMA of 1989, AB 341 and SB 1383. Specifically, SB 1383 requires that businesses and multifamily residential developments of five or more units divert organic waste. This is defined as compostable paper, food waste and landscape trimmings. Thus, recycling infrastructure will be required for organic (AB 1896) and non-organic (AB 341) waste and would help ensure that at least 75% of the solid waste generated by the project is recycled. Waste Management, Inc., is the franchise hauler for the City of Murrieta and is responsible for providing collection cans, collecting the solid waste material, providing recycling services and disposing of the solid waste in a landfill. Per the franchise agreement with the City of Murrieta, it is presumed that Waste Management, Inc., would follow all applicable federal, state, and local management and reduction statutes and regulations related to solid waste. A **less than significant** impact would occur under this threshold.

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

a) The nearest Very High Fire Hazard Severity Zone (VHFHSZ) is located approximately 0.8 miles southeast of the site. The CEQA Guidelines do not define "near" for the purpose of CEQA review; thus, for the purpose of this evaluation, the site is "near" a VHFHSZ. However, the VHFHSZ is separated from the Site by Murrieta Hot Springs Road, vacant land and the I-215 corridor. The City of Murrieta Local Hazard Mitigation Plan (2017), Emergency Operations Plan, Part 1 (June 2017) and General Plan 2035 Safety Element (2011) were reviewed. These documents do not define project specific evacuation routes. The Site is currently accessed from Sparkman Court and Vista Murrieta Road. Both streets serve as primary evacuation routes for residents living in the general area around the site south to Murrieta Hot Springs Road and north to Los Alamos Road and either Interstate 15 to the west of Interstate 215 to the east. Emergency vehicle access would be provided via the Monroe Avenue extension with access to

the north provided via Vista Murrieta Road. A gated EVA would be constructed on the south side of the Site as stated herein.
With implementation of the required road improvements specified in the project description, the Project would improve emergency access and evacuation for existing residents as well as project residents.

Further, the project site plan was reviewed for compliance with fire code and related regulations pertaining to fire safety. With three code compliant entrances/emergency access roads, the project provides multiple options for emergency access for first responders or egress routes for residents to evacuate in separate directions. Based on this evaluation, it was concluded that the project access meets the intent of the code and would be safe for the residents and public. A **less than significant impact** would occur under this threshold.

Source: Traffic Impact Assessment prepared for *The Terraces Apartment Project*, Linscott, Law and Greenspan, Transportation Engineers, Inc., October 2022
Source: DUDEK, *Murrieta Terraces Project Emergency Access Assessment*, January 20, 2023

b) The project Site is bordered by Murrieta Hot Springs Road to the south, Vista Murrieta Road to the north and Sparkman Court (Monroe Avenue) to the east. Low-density single-family residential is located to the north and commercial/office buildings are located to the east. As stated, the closest VHFHSV, as defined by the California Department of Forestry and Fire Protection (Cal Fire) is located approximately 0.8 miles to the southeast. The Site is separated from the VHFHSZ by Murrieta Hot Springs Road, vacant land and the I-215 corridor.

Prevailing wind is from the west so if a wildfire event were to occur under prevailing wind conditions, smoke would blow away from the Site. There are no steep slopes proximal to the Site or other factors that would exacerbate wildfire risk for project residents.

The Site would be designed consistent with the City of Murrieta Fire Code. There are no areas of expansive native habitat that could burn in the event a wildfire occurs. Downtown Murrieta and related developments are located to the west on the west side of the Interstate 15 corridor. The project Site is not expected to be exposed to high risk resulting from surrounding slopes or prevailing winds. Impacts would be **less than significant.**

Source: California Department of Forestry and Fire Protection, Very High Fire Hazard Severity Zone Viewer, accessed January 2022, https://egis.fire.ca.gov/FHSZ/.

c) The proposed Project is located on an infill development site that is approximately 0.8 miles northwest of the closest VHFHZ and separated from the VHFHZ by I-215, vacant land and Murrieta Hot Springs Road. The proposed Project must comply with all applicable Fire Code requirements and does not require installation or maintenance of the specific type of infrastructure (i.e., roads, fuel breaks, emergency water sources, power lines or other utilities) addressed in this threshold. As a condition of approval, off-site Vista Murrieta Road will be bladed, as requested in writing by the City of Murrieta Fire Department, up to but no more than

four times annually, with a motor grader or other equipment acceptable to the Fire Department from the point where ultimate improvements transition to Vista Murrieta Road. The project is required to improve Vista Murrieta Road along the property frontage to full half width plus a 12-foot lane and 8-foot gravel shoulder opposite the centerline. The proposed Project would not create an adverse impact associated with the installation or maintenance of infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. **No impact** would occur under this threshold.

Source: *Habitat Assessment and MSHCP Consistency Analysis for The Terraces Project* prepared by ELMT Consulting, Inc., August 2022.

d) The proposed Project would be located on a terraced site within an infill development site that is approximately 0.8 miles northwest of the closest VHFHSZ. The Site is not located downslope or downstream of a VHFHZ. The development area of the project Site is not located proximal to a flood zone nor does the project Site convey flood flows. A geologic reconnaissance and review of aerial photographs of the project Site demonstrates that the site is not underlain by landslides or unstable natural slopes. If a fire were to occur in the VHFHZ, the Site would not be affected by flooding or landslide as a result of runoff associated with post-fire slope stability or drainage changes. **No impact** would occur with the proposed Project under this threshold.

Source: *Habitat Assessment and MSHCP Consistency Analysis for The Terraces Project* prepared by ELMT Consulting, Inc., August 2022

Note that while impacts related to wildfire would be less than significant or not be affected by the Project as stated under threshold b, c and d. The following Standard Conditions are required by the City of Murrieta to be implemented by all projects to minimize wildfire impacts and would be incorporated as conditions of approval.

SC WF-1: Fire apparatus access roads (i.e., public and private streets) will be provided throughout the development and will provide at least the minimum required unobstructed travel lanes, lengths, turnarounds, and clearances required by applicable codes. Primary access and internal circulation will comply with the requirements of the MFRD.

SC WF-2: The Applicant shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:

- Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.
- To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.

- Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.
- For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.

Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.

SC WF-3: Project buildings shall be constructed of ignition resistant[1] construction materials and include automatic fire sprinkler systems based on the latest adopted Building and Fire Codes for occupancy types.

SC WF-4: Fuel Modification shall be provided as needed around the perimeter of the site, as required by MFRD and shall be 100 feet wide or greater where needed. On-going maintenance will be managed by Owner's, Property Management Company, or another approved entity, at least annually or as needed.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially degrade the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, 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?	☐	☒	☐	☐

[1] A type of building material that resists ignition or sustained flaming combustion sufficiently to reduce losses from wildland-urban interface, conflagration under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in CBC, Chapter 7A and State Fire Marshal Standard 12-7A-5, Ignition-Resistant Materials.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) The Project would be constructed on a largely undeveloped infill site. Removal of ruderal vegetation species would be required in some areas prior to construction particularly along the Site perimeter. There are no threatened, endangered or sensitive plant or animal species occurring on the Site. Implementation of **Mitigation Measures BIO-1 through BIO-5 and Standard Condition BIO-6** would avoid potential impacts to biological resources.

The project Site has a low sensitivity to cultural or paleontological resources. Implementation of **Mitigation Measures CUL-1, CUL-2, Standard Conditions CUL-3 through CUL-6 and Mitigation Measures TCR-1 through TCR 10** would avoid or minimize potentially significant impacts to previously undiscovered cultural resources. **Standard Condition PAL-1 and Mitigation Measure PAL-2 would** reduce potential impacts to paleontological resources to less than significant. Impacts to biological, cultural resources and paleontological resources would be **less than significant** with mitigation incorporated.

b) As presented in the discussion of environmental checklist Sections I through XX, the project would have no impact, a less than significant impact, or a potentially significant impact unless mitigation is incorporated with respect to all environmental issues. With **Standard Condition AES-1 through AES-5,** impacts to aesthetics and visual resources would remain less than significant. With **Standard Conditions AQ-1 through AQ-11**, air quality impacts would be less than significant. With implementation of Standard Conditions and Mitigation Measures referenced above, impacts to biological resource, cultural resources, paleontological and tribal cultural resource impacts would be less than significant. **Standard Conditions HAZ-1 and HYD-1** would ensure impacts related to hazardous materials and hydrology/water quality are less than significant. **Mitigation Measures NOI-1 through NOI-5** would avoid impacts related to noise. **Standard Conditions GEO-1 through GEO-5 and WF-1 through WF-4** would ensure impacts to geology/soils and wildfire remain less than significant. Based on the limited scope of direct physical impacts to the environment associated with the proposed project, the impacts are project-specific in nature. Consequently, the Project along with other cumulative projects

would result in a **less than significant** cumulative impact with respect to all environmental issues with mitigation incorporated.

c) In general, impacts to human beings are associated with air quality, hazards and hazardous materials and noise. As presented in the environmental checklist discussions, the project may have a temporary air quality and noise impacts during construction that can be mitigated with implementation of **Standard Conditions AQ-1 through AQ-11 and Mitigation Measures NOI-1 through NOI-5**. No significant or adverse impacts related to hazards or hazardous materials or hydrology/water quality were identified. **Standard Conditions HAZ-1 and HYD-1** would ensure impacts related to hazardous materials and hydrology/water quality are less than significant. Therefore, the Project would have a **less than significant** impact on human beings.

Conclusion

This document evaluated all CEQA issues contained in the latest Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with Agriculture and Forestry Resources, Energy, Greenhouse Gases, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation and Utilities & Service Systems. With the implementation of Standard Conditions identified herein, impacts to Aesthetics, Geology & Soils (with the exception of Paleontological Resources, threshold e), Hazards & Hazardous Materials, Hydrology & Water Quality and Wildfire would remain less than significant. Implementation of Mitigation Measures and Standard Conditions would be required to reduce potentially adverse impacts to Air Quality, Biological Resources, Cultural Resources and Paleontological Resources to less than significant. The implementation of Mitigation Measures would reduce potential project specific impacts to Noise and Tribal Cultural Resources to less than significant. Collectively, implementation of Standard Conditions and Mitigation Measures would reduce potential cumulative impacts to less than significant

Based on the evidence and findings in this Initial Study, the City of Murrieta has determined to adopt a Mitigated Negative Declaration (MND) for the **Terraces Apartment Project**. A Notice of Intent (NOI) to Adopt a Mitigation Negative Declaration will be issued for this project by the City. The Initial Study and NOI will be circulated for a 30 day public comment period. At the end of the **30-day review** period a final MND package will be prepared and reviewed by City staff for possible adoption at a future Planning Commission meeting, the date for which has yet to be determined. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting date in accordance with the requirements in Section 21092.5 of CEQA (statute).

The following identifies all Standard Conditions (SC) and project-specific Mitigation Measures (MM) associated with the proposed Terraces Apartment Project.

> **SC AES-1**: The Applicant shall meet the provisions of City of Murrieta Municipal Code Section 16.42 pertaining to Tree Preservation and Removal. The Applicant shall obtain

City approval to remove any trees on site through tree removal permit(s). The Applicant shall meet the provisions of 16.42.070 Tree Removal Permit which outlines further requirements pertaining to the tree removal permit process.

SC AES-2: The Applicant shall avoid compaction of soil during construction in areas where trees are located within or adjacent to the project site that do not require removal. The Applicant shall avoid root removal in all instances where it is possible to do so. The Applicant shall utilize the following Tree Preservation Guidelines:

Root Pruning

a. There shall be no disturbance to roots more than 2 inches in diameter. Roots less than 2 inches in diameter must be cleanly cut to encourage good callus tissue. It is recommended that roots be pruned back to the next root node.
b. Recommended distances from the trunk that roots should be pruned have been established for construction activities around trees. The recommendations are: Preferred distance – 5 times the diameter of the tree at breast height (dbh); Minimum distance – 3 times dbh.
c. The recommended time to prune roots is before active root growth in late summer and fall.
d. The less frequently roots are pruned the less impact there will be on tree health and stability.

Root Protection Zone

a. A root protection zone shall be defined by a minimum 42" high barrier constructed around the proposed outflow area. This barrier shall be at the drip line of the tree or at a distance from the trunk equal to 6 inches for each inch of trunk diameter 4.5 feet above the ground, if this method defines a larger area.
b. Should it be necessary to install irrigation lines within this area, the line shall be located by boring, or an alternate location for the trench is to be established. The minimum clearance between an open trench and a tree shall be no closer than 10 feet or 6 inches for each inch of trunk diameter measured at 4.5 feet above existing grade, if this method defines a larger distance. The maximum clearance shall be 10 feet. The contractor shall conform to these provisions c. At no time shall any equipment, materials, supplies or fill be allowed within the prescribed root protection.

Protection from Root Compaction

a. No vehicles shall be permitted to be parked under the dripline of trees in non-paved areas. Avoid placing heavy equipment, large rocks or boulders, and gravel under the drip line of the tree. The object is to avoid soil compaction, which makes it difficult for roots to receive oxygen from the soil.

Preventing Damage from Grade Changes adjacent to the proposed outflow area

Preventing tree damage from grade changes must be undertaken before the grade of the land is actually altered. Trees that are seriously declining due to grade changes seldom respond to corrective measures designed to save them.

If fill must be placed over tree roots, a well and drainage system must be installed. The dry well must be large enough to allow for future growth of the trunk. Agricultural drain tile (4 to 6 inches) should be placed on the natural grade of the land. The tile should drain to a lower level to prevent water from collecting within the well. Cover the tile with 6 to 8 inches of 2- to 3-inch stone. (Do not use limestone because this will raise the soil pH and could adversely affect tree growth.) Connect vent tiles with the drain tile to allow for gaseous exchange between the root zone and atmosphere. The fill should consist of a sandy soil or organic matter such as biochar to allow maximum aeration of the root zone.

For lowering the grade, all cuts in the natural grade must be made outside the dripline of a tree. Where trees are growing on a slope, the landscape sometimes is cut and filled to create a level site. Again, all grade changes should be made outside the dripline of the tree.

SC AES-3: For future development located in or immediately adjacent to residential zoned properties, construction documents shall include language that requires all construction contractors to strictly control the staging of construction equipment and the cleanliness of construction equipment stored or driven beyond the limits of the construction work area. Construction equipment shall be parked and staged within the project site, as distant from the residential use, as reasonably possible. Staging areas shall be screened from view from residential properties.

SC AES-4: Construction documents shall include language requiring that construction vehicles be kept clean and free of mud and dust prior to leaving the development site. Streets surrounding the development site shall be swept daily and maintained free of dirt and debris.

SC AES-5: Construction worker parking may be located off-site with prior approval by the City. On-street parking of construction worker vehicles on residential streets shall be prohibited.

MM AQ-1: Install MERV 16 or better filtration systems in each unit located within 500 feet of the nearest Interstate 15 travel lane.

SC AQ-2: Require the use of Tier 4 emissions standards or better for off-road diesel-powered construction equipment of 50 horsepower or greater. To ensure that Tier 4 construction equipment or better will be used during the proposed project's construction, SCAQMD staff recommends that the Lead Agency include this requirement in applicable bid documents, purchase orders, and contracts. Successful

contractor(s) must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. Additionally, the Lead Agency should require periodic reporting and provision of written construction documents by construction contractor(s) to ensure compliance and conduct regular inspections to the maximum extent feasible to ensure compliance.

SC AQ-3: Require zero-emissions or near-zero emission on-road haul trucks such as heavy-duty trucks with natural gas engines that meet the CARB's adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. At a minimum, require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year trucks (e.g., material delivery trucks and soil import/export) that meet CARB's 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. The Lead Agency should include this requirement in applicable bid documents, purchase orders, and contracts. The construction contractor shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The City shall conduct regular inspections to the maximum extent feasible to ensure compliance.

SC AQ-4: All trucks hauling dirt, sand, soil or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

SC AQ-5: Enter into applicable bid documents, purchase orders, and contracts to notify all construction vendors, contractors, and/or haul truck operators that vehicle and construction equipment idling time will be limited to no longer than five minutes, consistent with the CARB's policy. For any idling that is expected to take longer than five minutes, the engine should be shut off. Notify construction vendors, contractors, and/or haul truck operators of these idling requirements at the time that the purchase order is issued and again when vehicles enter the proposed project site. To further ensure that drivers understand the vehicle idling requirement, post signs at the proposed project site, where appropriate, stating that idling longer than five minutes is not permitted.

SC AQ-6: The contractor shall adhere to applicable measures contained in Table 1 of Rule 403 including, but not limited to:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.

- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- All access points to the project site shall have track out devices installed.

The contractor shall ensure that traffic speeds on unpaved roads and project site areas are limited to 15 mph or less.

SC AQ-7: The project applicant shall require that all building structures meet or exceed 2022 Title 24, Part 6 Standards and meet Green Building Code Standards.

SC AQ-8: The project applicant shall require that all faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20% per SB X7-7 and CalGreen Standards.

SC AQ-9: The project applicant shall require that a water-efficient irrigation system be installed that conforms to the requirements of City codes.

SC AQ-10: The project applicant shall require that ENERGY STAR-compliant appliances are installed on-site.

SC AQ-11: Only "Low-Volatile Organic Compounds (VOC)" paints (no more than 50 gram/liter (g/L) of VOC) consistent with SCAQMD Rule 1113 shall be used.

MM BIO-1: 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. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

MM BIO-2. The applicant shall purchase mitigation credits through the Riverpark Mitigation Bank or similar conservation area at a ratio of 3:1 for a total of 0.18 acres to compensate for the loss of non-wetland jurisdictional resources.

M BIO-3: Applicant shall provide evidence demonstrating that a deed restriction, conservation easement or appropriate mechanism has been attached to the parcel comprising Drainage 1 prior to issuance of a grading permit.

MM BIO-4: 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-5: 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.

SC BIO-6: The Applicant shall comply with the following:

- Drainages – Proposed developments in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions.

- Toxics – Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area.

- Lighting – Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.

- Noise – Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise

standards.

- Invasives – The project shall avoid the use of invasive species (MSHCP Section 6.1.4 – Table 6-2) for landscaping portions of development that are adjacent to the MSHCP Conservation Area.

- Barriers – Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area.

- Grading/Land Development – Manufactured slopes associated with proposed site development shall not extend into the MSHCP Conservation Area.

MM CUL-1: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Historic Preservation Professional Qualification Standards for archaeology (National Park Service 1997) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA or Section 106, additional work such as data recovery excavation may be warranted.

MM CUL-2: If human remains are found during ground disturbing activities, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

SC CUL-3: If, during earthwork and ground-disturbing activities, unique cultural resources, as that term is defined in PRC para. 21083,2(g), or an historic resource, as that term is defined in PRC para. 21084.1, are discovered and the resources were not assessed or addressed by the prior archaeological investigations or environmental assessment conducted prior to project approval, the following procedures shall be implemented:

a) All earthwork and ground-disturbing activities within 100 feet ("buffer area") of the discovery will be halted while the Project Archaeologist makes an initial assessment of the significance of the discovery.

b) Once the Project Archaeologist makes the initial assessment, the City Planner will convene a meeting with the Project Applicant, Project Archaeologist, and tribe(s) to

discuss the significance of the discovery and what mitigation measures are feasible in accordance with examples in PRC para. 21083.2(b). If the parties cannot reach agreement on a feasible mitigation measure, the City Planner with the assistance of a third-party archaeologist will make a final determination on the appropriate mitigation and treatment of the resources; if there are disagreements with the determination, a Project Issue Resolution (PIR) meeting will be facilitated.

c) Earthwork and ground-disturbing activities will not resume within the buffer area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation and treatment of the resources. Earthwork and ground-disturbing activities will be allowed to continue outside of the buffer area and will be monitored by archaeological and tribal monitor(s).

d) Treatment and avoidance of any newly discovered resources will be consistent with these mitigation measures and the Cultural Resources Monitoring Plan as required by MM CUL-3.

SC CUL-4: At least thirty (30) days prior to submittal of the final grading plans to the City, the Project Applicant, Project Archaeologist, City planner and tribe(s) will meet and develop a Cultural Resources Monitoring Plan ("CRMP) for the treatment and mitigation of Native American cultural resources discovered during Project development. Treatment of the newly discovered resource(s) will be consistent with the terms and provisions of the CRMP and may be amended by the parties as agreed upon. Prior to its finalization, the Project Archaeologist will circulate the draft CRMP to the City Planner and any tribe(s) requesting monitoring of the Project for review and comment. The final document will include information provided by the tribe(s) concerning tribal methods and practices and other appropriate issues that may be relevant to culturally appropriate treatment of the resources. The involved parties will make good-faith efforts to incorporate the Tribe's comments. The City Planner will have final review and approval authority for the CRMP. If there are disagreements with the approval, a Project Issue Resolution (PIR) meeting will be facilitated. All parties are required to withhold public disclosure of information related to the treatment and mitigation of cultural resource(s) pursuant to the specific exemption set forth in CGC para. 6254(r).

The CRMP will include/address each of the following:

a) The parties entering into the CRMP, and their contact information.

b) The Project schedule including the frequency and location of monitoring of earthwork and ground disturbing activities and details regarding what types of construction-related activities will require monitoring.

SC CUL-5: Should any subsurface cultural 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 shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the City's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act. Measures in accordance with CUL-3 and CUL-4 shall be followed if the accidentally exposed cultural material is also a Tribal Cultural Resource.

SC CUL-6: On-Site Preservation/Reburial Location for Sensitive Native American Resources. All Native American sensitive resources including, without limitation, ceremonial items, sacred items, and grave goods as those same are identified by the tribe(s) during Project earthwork and ground-disturbing activities, will be reburied on the Project property. At least thirty (30) days prior to submittal of final grading plans to the City, the Project Applicant, Project Archaeologist, City Planner, and the tribe(s) will meet to identify the location(s) for on-site reburial (the "Preservation Site(s)"). During the meeting, the group will develop a confidential exhibit depicting and describing the Preservation Site(s), which exhibit will be kept by the City Planner under confidential cover and not subject to a Public Records Act request.

The Preservation Site(s) will be located within the Project site development envelope of the Project, outside of any known and identified cultural resource sites. Prior to the issuance of the first building permit for the applicable tract or phase that includes a Preservation Site location, the Project Applicant will record a restrictive covenant over the Preservation Site with the intent to ensure the site remains in an undisturbed state in perpetuity.

Any Preservation Site that includes relocated/ reburied Native American cultural resources will be capped by first placing a layer of geomat fabric over the reburied resources, and then filling the site with clean, sterile soil and contouring the site to appear in a natural state. Once a Preservation Site has been filled and contoured, no earthwork or ground-disturbing activities or subsurface facilities will be permitted in the Preservation Site, with the exception of those activities and requirements that may be required pursuant to the Fire Protection Technical Report.

SC PAL-1: If during initial ground disturbance activities paleontological resources are encountered a qualified paleontological monitor shall be retained, and have the authority, if necessary, to stop, redirect grading activities, and evaluate the significance of any paleontological resources discovered on the property. If significant paleontological resources are encountered, adequate funding shall be provided· to collect, curate and report on these resources. A report shall be submitted to the City of Murrieta within 60 days from the completion of grading.

MM PAL-2: A Paleontological Resources Management Plan shall be prepared and implemented by a Riverside County Certified Paleontologist for this project. At minimum it shall include: (1) paleontological resources awareness training for all earthmoving personnel, (2) specify paleontological personnel qualifications, (3) identify the Western Science Center as the repository for fossils recovered, (4) take into account the latest information on cut depth and location and specify where monitoring shall be required, (5) require full-time monitoring of the Pauba Formation and (if encountered) unnamed sandstone sediments, (6) specify fossil recovery procedures and locality documentation, (7) specify laboratory procedures, (8) require a detailed catalogue of specimens recovered with identification by experts, and (9) require a final report with the catalogue and all specialists reports as appendices.

If unanticipated fossil resources are unearthed during construction excavations, the contractor shall cease all earth-disturbing activities within a 25-foot radius of the area of discovery until the discovery can be evaluated by a Riverside County Certified Paleontologist.

SC GEO-1: Based upon the geotechnical investigation (Appendix H), all of the recommended seismic design parameters identified in Appendix H (listed on Pages 13-36) shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including seismic soil stability on future project-related structures.

SC GEO-2: 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 sandbags shall be used to capture and hold eroded material on the project site for future cleanup such that erosion does not occur.

SC GEO-3: 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.

SC GEO-4: Based upon the geotechnical investigation (Appendix H), all of the recommended design and construction measures identified in Appendix H (listed on Pages 13-36) shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including soil stability on future project-related structures.

SC GEO-5: Should any paleontological resources be encountered during construction of these facilities, earth-moving 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 mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource. See also Mitigation Measure PAL-2 above.

SC 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.

SC 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.

MM NOI-1: Electrical power shall be used to run air compressors and similar power tools. Internal combustion engines should be equipped with a muffler of a type recommended by the manufacturer and in good repair. All diesel equipment should be operated with closed engine doors and should be equipped with factory-recommended mufflers. Construction equipment that continues to generate substantial noise at the project boundaries should be shielded with temporary noise barriers, such as barriers that meet a sound transmission class (STC) rating of 25, sound absorptive panels, or sound blankets on individual pieces of construction equipment. Stationary noise-generating equipment, such as generators and compressors, should be located as far as practically possible from the nearest residential property lines.

MM NOI-2: Limit the number of large pieces of equipment (i.e., bulldozers or concrete mixers) operating adjacent to receivers to one at any given time.

MM NOI-3: Provide notification to residential occupants adjacent to the project site at least two weeks prior to initiation of construction activities that could result in noise levels of 75-dBA at adjacent residences. This notification should include the anticipated hours and duration of construction and a description of noise reduction measures being implemented at the project site. The notification should include a telephone number to call to submit complaints associated with construction noise.

MM NOI-4: Construction contractors shall develop and implement a noise control plan that includes a noise control monitoring program to ensure sustained construction noise

levels do not exceed 75 decibels at the adjacent multifamily residences located south of the site. The plan may include the following requirements:

- Contractor shall turn off idling equipment.
- Contractor shall perform noisier operation during the times least sensitive to receptors.
- All diesel equipment shall be operated with closed engine doors and shall be equipped with factory- recommended mufflers.
- Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or security staff facilities.
- For all noise-generating construction activities, additional noise attenuation techniques shall be employed as necessary to reduce noise levels. Such techniques shall include, but are not limited to, the use of sound blankets, noise shrouds and temporary sound barriers.

MM NOI-5: All windows and entry doors facing Murrieta Hot Springs Road, Monroe Avenue and Interstate 15 shall have the following minimum Sound Transmission Class (STC) ratings:

- Building number 2 should have a minimum STC of 26;
- Buildings 3 and 4 should have a minimum STC of 27;
- Building 5 should have a minimum STC of 28;
- Building 6 should have a minimum STC of 31.

MM TCR-1: Cultural Resource Monitoring Plan. At least thirty (30) days prior to the submittal of the final grading plans to the City, the Project Applicant, Principal Investigator/Archaeologist, Project Tribal Cultural Monitor(s), and designated project planner from the City of Murrieta will meet and develop a Cultural Resources Monitoring Plan (CRMP or Plan) for the treatment and mitigation of cultural resources during Project development. Treatment of the resource(s) will be consistent with the terms and provisions of the mitigation and CRMP and may be amended by the parties as agreed upon. Prior to its finalization, the Principal Investigator/Archaeologist will circulate the draft CRMP to the assigned planner and Consulting Tribes for review and comment. The final document will include methods and practices and other appropriate issues that may be relevant to the culturally appropriate treatment of the resources. All parties are required to withhold public disclosure of information related to the treatment and mitigation of cultural resource(s) pursuant to the specific exemption set forth in CGC para. 6254(r). The Plan is to outline a program of treatment and mitigation of the known and inadvertently found cultural resources during ground-disturbing phases (throughout the duration of the Project. This plan will define the process to be followed for the identification and management of cultural resources in the Project area during construction. Existence of and importance of adherence to this Plan should be stated on all Project site plans intended for use by those conducting the ground-disturbing activities. The Plan will also include the conditions under which monitoring is required

pursuant to SC CUL-3 and MM-TCR-3 and the manner of facilitation. The CRMP will include/address each of the following:

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 Tribes and Principal Investigator/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 resource's 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;
h) details of the relocation and controlled grading operations.

MM TCR-2: Worker Environmental Awareness Program. All construction personnel and monitors who are not trained archaeologists or tribal cultural monitors shall be briefed regarding inadvertent discoveries prior to the start of construction activities. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide the construction personnel with brief review of the cultural sensitivity of the project and the surrounding area; what resources could be potentially identified during earthmoving activities; the requirements of the monitoring program; the protocols to follow during the construction of the project and explain the importance of and legal basis for the protection of significant archaeological and tribal cultural resources, and who to contact if and when the cultural resources are identified. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor, archaeological, and tribal cultural monitor(s).

MM TCR-3: Native American Monitoring. At least 30 days prior to issuance of a grading permit the applicant/owner/developer shall contact all Consulting Tribes with notification of the approximate commencement of ground-disturbing activities. The applicant/owner/developer shall secure agreements with the Consulting Tribes for Tribal Monitoring. The agreement shall include, but not limited, outlining provisions and requirements for addressing the treatment of cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional Tribal monitors during ground disturbing activities. The copy of the signed agreement shall be provided to the City Planner and Building Official prior to issuance of the first grading permit. The Native American Monitor has the authority to temporarily divert

and stop earth moving activities in the event that suspected cultural resources are unearthed. The Native American Monitor(s) will be responsible for maintaining weekly monitoring logs, the Developer shall identify an individual on site to sign the weekly logs.

MM TCR-4: Inadvertent Discovery Clause. If during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribes. Tribal cultural resources are excluded from the definition of unique cultural resources as those resources are defined by the tribal values ascribed to them by their affiliated communities. Treatment of tribal cultural resources inadvertently discovered during the project's ground-disturbing activities shall be subject to the consultation process required by state law and AB 52.

a) All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the Project Applicant, the Principal Investigator/Archaeologist, the Tribal Representative(s), and the Community Development Director to discuss the significance of the find.

b) At the meeting, the significance of the discoveries shall be discussed and after consultation with the Tribal Representative(s) and the Principal Investigator/ Archaeologist, a decision shall be made, with the concurrence of the City Planner, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

c) Further ground disturbance, including but not limited to grading, trenching etc., 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 Tribal Monitors if needed.

d) Treatment and avoidance of the newly discovered resources shall be consistent with the Cultural Resources Management Plan and Monitoring Agreements entered into with the Consulting Tribes. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition/ Mitigation Measures.

e) 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 Principal Investigator/Archaeologist, in consultation with the Consulting Tribes, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

f) Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the Project Applicant and the Consulting Tribes cannot agree on the significance or the mitigation for the archaeological or cultural resources, these issues will be presented to the City Planner for decision. The Development Services Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources, recommendations of the Principal Investigator/Archaeologist and shall take into account the cultural and religious principles and practices of the Consulting Tribes. Notwithstanding any other rights available under the law, the decision of the City Planner shall be appealable to the City Planning Commission and/or City Council. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM TCR-5: Final Disposition. In the event that Native American Cultural resources are identified during Project earthwork and ground-disturbing activities, the following procedures shall be carried out for final disposition; One or more of the following treatments, in order of preference, shall be employed in consultation with the Consulting Tribes. Evidence of such shall be provided to the City of Murrieta.

1. Preservation-In-Place of the cultural resources. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resource(s).

2. Reburial of the cultural resource(s) on the Project property. The Preservation Site(s) will be located within the Project site development envelope of the Project, outside of any known and identified cultural resource sites. The measures for reburial shall include, at least, the following: 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, with an exception that sacred items, burial goods, and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

3. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods, and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report. Evidence of compliance with this mitigation measure, if a significant archaeological resource is found, shall be provided to City of Murrieta upon the completion of a treatment plan and final report detailing the significance and treatment finding.

MM TCR-6: Relocation of Resources. Should any features be uncovered on site as determined by the Consulting Tribes, they shall work with the Principal Investigator/ Archaeologist, the developer, and the grading contractor or appropriate personnel to determine a reasonable methodology for relocating any found features. The current Department of Parks and Recreation (DPR) forms shall be updated, detailing which features (if any) were relocated, the process taken, and updated maps provided documentation of the features' new location. The site record should clearly indicate that the features are not in their original location and why they were relocated.

MM TCR-7: Controlled Grading and Grubbing. Should any areas of concern be identified as determined by the Principal Investigator/Archaeologist and the Consulting Tribes. The identified area shall be inspected by the Principal Investigator/Archaeologist and Native American monitor prior to initiating grading for those areas to determine the extent and controlled grading process. Other areas which may require controlled grading shall be determined by the Principal Investigator/Archaeologist and the Native American monitor(s) based on the results and soil types identified during grading. Should any changes be needed, an updated exhibit will be produced and approved by all parties prior to any ground disturbance in the newly identified area.

MM TCR-8: Phase IV Report. Prior to final inspection, the Principal Investigator/Archaeologist is to submit two (2) copies of the Phase IV Cultural Resources Monitoring Report that complies with the Planning 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 Planning Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Planning 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 Tribes' Cultural Resources Departments.

MM TCR-9 Human Remains. In the event that human remains are inadvertently encountered during construction activities, all work is to immediately stop and no further disturbance shall occur in the area until the County Coroner has made the necessary findings as to origin. The remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to immediately notify the Native American Heritage Commission (NAHC). The NAHC must immediately notify those persons it believes to be the most likely descendant (MLD). The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

MM TCR-10: Non-Disclosure. 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).

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