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Environmental Impact Report

# Pacific Specific Plan Project

State Clearinghouse No. 2022050650

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*Prepared for:*

**CITY OF SAN MARCOS**

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# Acronyms and Abbreviations

| Acronym/Abbreviation     | Definition  |
|--------------------------|---|
| $\mu\text{g}/\text{m}^3$ | micrograms per cubic meter                                |
| AB                       | Assembly Bill   |
| ACC                      | air-cooled condensing                                     |
| ADT                      | average daily traffic volumes                             |
| AERMOD                   | American Meteorological Society/EPA Regulatory Model      |
| AFY                      | acre-feet per year  |
| ANSI                     | American National Standards Institute                     |
| APE                      | area of potential effect                                  |
| BMP                      | best management practice                                  |
| BTR                      | Biological Resources Technical Report                     |
| CAA                      | Clean Air Act   |
| CAAQS                    | California Ambient Air Quality Standards                  |
| CAL FIRE                 | California Department of Forestry and Fire Protection     |
| CalEEMod                 | California Emissions Estimator Model                      |
| CalEPA                   | California Environmental Protection Agency                |
| CALGreen                 | California Green Building Standards                       |
| CalRecycle               | California Department of Resources Recycling and Recovery |
| Caltrans                 | California Department of Transportation                   |
| CAP                      | Climate Action Plan                                       |
| CARB                     | California Air Resources Board                            |
| CBC                      | California Building Code                                  |
| CDFW                     | California Department of Fish and Wildlife                |
| CEC                      | California Energy Commission                              |
| CEQA                     | California Environmental Quality Act                      |
| CFC                      | chlorofluorocarbons                                       |
| CFC                      | California Fire Code                                      |
| CFGC                     | California Fish and Game Code                             |
| CH <sub>4</sub>          | methane   |
| CMP                      | Congestion Management Program                             |
| CNEL                     | community noise equivalent level                          |
| CNPS                     | California Native Plant Society                           |
| CNRA                     | California Natural Resources Agency                       |
| CO                       | carbon monoxide   |
| CO <sub>2</sub>          | carbon dioxide  |
| CO <sub>2e</sub>         | carbon dioxide equivalent                                 |
| CPUC                     | California Public Utilities Commission                    |
| CRHR                     | California Register of Historic Resources                 |
| CRPR                     | California Rare Plant Rank                                |
| CWA                      | Clean Water Act   |
| dB                       | decibel   |

ACRONYMS AND ABBREVIATIONS

| Acronym/Abbreviation | Definition   |
|----------------------|--|
| dBa                  | A-weighted decibel                                       |
| DPM                  | diesel particulate matter                                |
| DU/acre              | dwelling unit per acre                                   |
| DWR                  | Department of Water Resources                            |
| EDCO                 | EDCO Waste and Recycling                                 |
| EIR                  | environmental impact report                              |
| EISA                 | Energy Independence and Security Act of 2007             |
| EO                   | Executive Order  |
| EOP                  | Emergency Operations Plan                                |
| EPA                  | Environmental Protection Agency                          |
| ERNS                 | Emergency Response Notification System                   |
| ESA                  | Environmental Site Assessment                            |
| ESA                  | Endangered Species Act                                   |
| FAA                  | Federal Aviation Administration                          |
| FAR                  | Floor area ratio   |
| FEMA                 | Federal Emergency Management Agency                      |
| FPP                  | Fire Protection Plan                                     |
| g/L                  | grams per liter  |
| GHG                  | greenhouse gas   |
| GPA                  | General Plan Amendment                                   |
| GWP                  | global warming potential                                 |
| HCFC                 | hydrochlorofluorocarbon                                  |
| HELIX                | HELIX Environmental Planning, Inc                        |
| HFC                  | hydrofluorocarbon  |
| HMMP                 | Habitat Mitigation Monitoring Plan                       |
| HRA                  | health risk assessment                                   |
| HAS                  | Hydrologic Subarea                                       |
| I                    | Interstate   |
| IBC                  | International Building Code                              |
| IFC                  | International Fire Code                                  |
| IPCC                 | Intergovernmental Panel on Climate Change                |
| ips                  | inches per second  |
| ISTEA                | Intermodal Surface Transportation Efficiency Act of 1991 |
| ITP                  | Incidental Take Permit                                   |
| kV                   | kilovolt   |
| kWh                  | kilowatt-hours   |
| LCFS                 | Low Carbon Fuel Standard                                 |
| L <sub>dn</sub>      | day-night average noise level                            |
| L <sub>eq</sub>      | equivalent noise level over a given period               |
| LID                  | low impact development                                   |
| LLG                  | Linscott, Law & Greenspan Engineers                      |
| L <sub>max</sub>     | maximum sound level                                      |
| LOS                  | Level of Service   |

ACRONYMS AND ABBREVIATIONS

| Acronym/Abbreviation | Definition  |
|----------------------|---|
| LTA                  | Local Transportation Analysis                       |
| LTPP                 | Long-Term Procurement Plan                          |
| LUST                 | Leaking Underground Storage Tank                    |
| MBTA                 | Migratory Bird Treaty Act                           |
| MGD                  | million gallons per day                             |
| MHCP                 | Multiple Habitat Conservation Program               |
| MM                   | Mitigation Measure                                  |
| MMT                  | million metric tons                                 |
| MRF                  | Meadowlark Water Reclamation Facility               |
| MRZ                  | Mineral Resource Zone                               |
| MS4                  | municipal separate storm sewer system               |
| msl                  | mean sea level                                      |
| MT                   | metric ton  |
| MWD                  | Metropolitan Water District of Southern California  |
| N <sub>2</sub> O     | nitrous oxide                                       |
| NAAQS                | National Ambient Air Quality Standards              |
| NAHC                 | Native American Heritage Commission                 |
| NCCP                 | Natural Communities Conservation Planning           |
| NCTD                 | North County Transit District                       |
| NEPA                 | National Environmental Policy Act                   |
| NEV                  | neighborhood electric vehicle                       |
| NHTSA                | National Highway Traffic Safety Administration      |
| NO <sub>2</sub>      | nitrogen dioxide                                    |
| NOP                  | Notice of Preparation                               |
| NO <sub>x</sub>      | oxides of nitrogen                                  |
| NPDES                | National Pollutant Discharge Elimination System     |
| NPL                  | National Priority List                              |
| NRHP                 | National Register of Historic Places                |
| O <sub>3</sub>       | ozone   |
| PAR                  | Property Analysis Record                            |
| PFC                  | perfluorocarbon                                     |
| PFF                  | Public Facility Fee                                 |
| PM                   | particulate matter                                  |
| PM <sub>10</sub>     | coarse particulate matter                           |
| PM <sub>2.5</sub>    | fine particulate matter                             |
| PMP                  | Preserve Management Plan                            |
| ppm                  | parts per million                                   |
| PPV                  | peak particle velocity                              |
| PRC                  | California Public Resources Code                    |
| PRIMP                | Paleontological Resources Impact Mitigation Program |
| RAQS                 | Regional Air Quality Strategy                       |
| RCRA                 | Resource Conservation and Recovery Act              |
| RFS                  | Renewable Fuel Standard                             |

ACRONYMS AND ABBREVIATIONS

| Acronym/Abbreviation | Definition  |
|----------------------|---|
| RHNA                 | Regional Housing Need Allocation                              |
| RPS                  | Renewables Portfolio Standard                                 |
| RTP                  | Regional Transportation Plan                                  |
| RWQCB                | Regional Water Quality Control Board                          |
| SAFE                 | Safer Affordable Fuel-Efficient                               |
| SANDAG               | San Diego Association of Governments                          |
| SB                   | Senate Bill   |
| SCAQMD               | South Coast Air Quality Management District                   |
| SCIC                 | South Coastal Information Center                              |
| SCS                  | Sustainable Communities Strategy                              |
| SDAB                 | San Diego Air Basin   |
| SDAPCD               | San Diego Air Pollution Control District                      |
| SDCWA                | San Diego County Water Authority                              |
| SDG&E                | San Diego Gas & Electric                                      |
| SDNHM                | Natural History Museum of San Diego                           |
| SEMS                 | Superfund Enterprise Management System                        |
| SF <sub>6</sub>      | sulfur hexafluoride   |
| SIP                  | California State Implementation Plan                          |
| SLF                  | Sacred Lands File   |
| SMFD                 | San Marcos Fire Department                                    |
| SMMC                 | San Marcos Municipal Code                                     |
| SMUSD                | San Marcos Unified School District                            |
| SO <sub>2</sub>      | sulfur dioxide  |
| SoCalGas             | Southern California Gas                                       |
| SO <sub>x</sub>      | sulfur oxides   |
| SPA                  | Specific Plan Area  |
| SPL                  | sound pressure level  |
| SR                   | State Route   |
| ST                   | short-term  |
| STC                  | sound transmission class                                      |
| SWAT                 | Solid Waste Assessment Test                                   |
| SWF/LF               | Solid Waste Fill/Landfill                                     |
| SWPPP                | stormwater pollution prevention plan                          |
| SWQMP                | Storm Water Quality Management Plan                           |
| SWRCB                | State Water Resources Control Board                           |
| SWRCY                | Solid Waste Recycling Facilities                              |
| TAC                  | toxic air contaminant   |
| TCA Tribe            | Traditionally and Culturally Affiliated Native American Tribe |
| TCR                  | tribal cultural resource                                      |
| TDM                  | Transportation Demand Management                              |
| TMDL                 | total maximum daily load                                      |
| TWLT                 | two-way left-turn   |
| USACE                | U.S. Army Corps of Engineers                                  |

## ACRONYMS AND ABBREVIATIONS

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| Acronym/Abbreviation | Definition                            |
|----------------------|---------------------------------------|
| USFWS                | U.S. Fish and Wildlife Service        |
| UST                  | underground storage tank              |
| UWMP                 | Urban Water Management Plan           |
| V/C                  | volume to capacity                    |
| VFD                  | Vista Fire Department                 |
| VMT                  | Vehicle Miles Traveled                |
| VOC                  | volatile organic compound             |
| VPMP                 | Vernal Pool Mitigation Plan           |
| VWD                  | Vallecitos Water District             |
| WMUDS                | Waste Management Unit Database System |
| WQIP                 | Water Quality Improvement Plan        |
| ZEV                  | zero-emission vehicle                 |

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# 1 Executive Summary

## 1.1 Project Summary

The proposed Pacific Specific Plan Project (proposed project) proposes to develop 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats, on approximately 15.09 acres of a 33.2-acre project site in the City of San Marcos (City). Of the total number of proposed units, 68 units (15%) would be deed-restricted affordable units.

The project would include a total of 927 parking spaces and 134,985 square feet of common open space area. The proposed project also includes landscaping, bio-retention areas, and circulation improvements. The remaining approximately 17.94 acres of the 33.2-acre project site would be preserved and restored open space and habitat area. The proposed project would have a density of approximately 29.8 dwelling units per acre, not including the proposed open space and habitat area. With the open space and habitat area included, the density of the proposed project site would be approximately 13.5 dwelling units per acre.

As part of the project, additional pedestrian connectivity would be provided along three of the adjacent street frontages. The project would provide a 6-foot sidewalk and Class II buffered bike lane along the project's frontage on Pacific Street, a 12-foot urban trail (shared use path) along the project's frontage on Linda Vista Drive, and a 12-foot urban trail (shared use path) along the project's frontage on La Mirada Drive (please refer to Figure 2-5, Conceptual Site Plan). In addition to the proposed sidewalk and trail connections, the project would add a bus stop and shelter with a bus turnout along South Las Posas Road adjacent to the development area and would install a four-way traffic signal at the intersection of Linda Vista Drive and Pacific Street. Furthermore, the project would upsize approximately 1,458 feet of existing water pipe from 8 inches to 12 inches and would convert approximately 1,400 feet of existing overhead power lines to underground along La Mirada.

The 33.2-acre project site is an infill site located in the western portion of the City, at the northwest corner of South Las Posas Road and Linda Vista Drive, comprised of Assessor's Parcel Numbers 219-222-01, 219-222-02, 219-222-03, and 219-222-04. La Mirada Road abuts the site's northern boundary, while Pacific Street abuts the property's western boundary. The Grand Plaza shopping center is located directly across South Las Posas Road. Light industrial uses are adjacent to the site's northern, southern, and western boundary, and Bradley park is located across from the site's southwestern corner. Single- and multifamily residential uses are located to the west and south of Bradley park. The project location and project site boundary are shown on Figures 2-1 and 2-2.

The project proposes a General Plan Amendment, Rezone (GPA), Specific Plan, Tentative Map, and Multi-Family Site Development Plan. The GPA and Rezone would change the General Plan designation and zoning from Industrial (I) to Specific Plan Area (SPA). The Specific Plan has been prepared with the intent to provide a comprehensive plan to ensure the efficient development of a new residential community. The Specific Plan serves as both a policy document and a regulatory document for the systematic implementation of the policies and goals of the General Plan (the Specific Plan is included as Appendix M to this Environmental Impact Report [EIR]). The Tentative Map presents specific lot configurations for the site. The Multi-Family Site Development Plan will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.

## 1.2 Summary of Significant Effects And Mitigation Measures That Reduce or Avoid the Significant Effect

Table 1-1 provides a summary of significant environmental impacts resulting from the project, mitigation measures identified to reduce and/or avoid the environmental effects, and a determination of the level of significance of each impact following implementation of the identified mitigation measures. The analysis shows that, as mitigated, all project impacts would be less than significant. Detailed analyses of significant environmental effects and mitigation are provided in Chapter 3 of this EIR.

The mitigation measures listed in Table 1-1 would reduce impacts related to air quality, biological resources, cultural resources, and tribal cultural resources to below a level of significance.

**Table 1-1. Summary of Significant Environmental Impacts**

| Impact  | Mitigation Measures  | Level of Significance After Mitigation |
|---|--|--|
| <b>Air Quality</b>  |  |  |
| Impact AQ-1: Construction of the project would exceed the significance threshold for VOC emissions  | Implementation of <b>MM-AQ-1</b> , refer to Section 3.2.5.   | Less than significant                  |
| <b>Biological Resources</b>   |  |  |
| Impact BIO-1: Special-Status Species  | Implementation of <b>MM-BIO-1</b> through <b>MM-BIO-6</b> , refer to Section 3.3.5.                  | Less than significant                  |
| Impact BIO-2: Riparian Habitat and Sensitive Natural Communities  | Implementation of <b>MM-BIO-7a</b> , <b>MM-BIO-7b</b> and <b>MM-BIO-7c</b> , refer to Section 3.3.5. | Less than significant                  |
| Impact BIO-3: Jurisdictional Wetlands and Waterways   | Implementation of <b>MM-BIO-8a</b> and <b>MM-BIO-8b</b> , refer to Section 3.3.5.                    | Less than significant                  |
| <b>Cultural Resources</b>   |  |  |
| Impact CR-1: Unknown archaeological resources may occur on the project site, and the proposed project has the potential to disturb such unidentified resources during project grading | Implementation of <b>MM-TCR-1</b> through <b>MM-TCR-3</b> , refer to Section 3.4.5.                  | Less than significant                  |
| Impact CR-2: There is a potential for project construction activities to disturb previously unidentified human remains on the project site  | Implementation of <b>MM-TCR-1</b> through <b>MM-TCR-4</b> , refer to Section 3.4.5.                  | Less than significant                  |
| <b>Geology and Soils</b>  |  |  |
| Impact GEO-1: The project has the potential to damage paleontological resources during construction   | Implementation of <b>MM-GEO-1</b> , refer to Section 3.6.5.  | Less than significant                  |

**Table 1-1. Summary of Significant Environmental Impacts**

| Impact   | Mitigation Measures   | Level of Significance After Mitigation |
|--|---|--|
| <b>Tribal Cultural Resources</b>   |   |  |
| Impact TCR-1: Impacts to previously unidentified Tribal Cultural Resources | Implementation of <b>MM-TCR-1</b> through <b>MM-TCR-4</b> , refer to Section 3.4.5. | Less than significant                  |

## 1.3 Areas of Controversy

A Notice of Preparation (NOP) was distributed on June 1, 2022, for a 30-day public review and comment period. Additionally, a public information meeting was held on June 21, 2022, at 6:00 p.m. at the San Marcos City Hall in the Valley of Discovery Room located at 1 Civic Center Drive, in San Marcos.

Public comments were received on the NOP for this EIR and reflect concern or controversy over a number of environmental issues (refer to Appendix A for the NOP and NOP comment letters). A total of nine letters were received; concerns presented in these letters are addressed in Chapter 3 of this EIR. Issues and concerns raised in the NOP comment letters include:

- **Transportation:** scope of the study area, existing roadway congestion, trip generation and distribution, safety, project access
- **Biological Resources:** conversion of sensitive habitat, potential direct and indirect impacts to special-status species, alternatives considered, and inclusion of appropriate mitigation
- **Cultural and Tribal Cultural Resources:** compliance with Assembly Bill 52 and Senate Bill 18
- **Land Use:** compatibility with surround land uses/development
- **Public Services:** potential impact to schools.
- **Population and Housing:** housing density
- **Noise:** concerns of noise from existing industrial land uses on the project

## 1.4 Issues to be Resolved by the Decision-Making Body

An EIR is an informational document intended to inform the public agency decision makers and the public of the significant effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

The lead agency must respond to each significant effect identified in the EIR by making “Findings” for each significant effect. The issues to be resolved by the decision makers for the project include whether or how to mitigate the associated significant effects, including whether to implement a project alternative. The decision makers must determine whether any of the project alternatives would substantially reduce significant effects while still meeting key objectives of the project.

## 1.5 Project Alternatives

Two alternatives are proposed to provide an understanding of how environmental effects could be reduced by varying the design and scope of the project. Table 1-2 provides a comparison of the impacts of project alternatives to the impacts of the proposed project. The alternatives outlined below are more fully discussed in Chapter 4 of this EIR.

### 1.5.1 No Project Alternative

Under the No Project Alternative, the proposed project would not be implemented, and the project site would remain undeveloped in its existing condition. This alternative would eliminate all the significant impacts identified for the proposed project. Habitat on the project site would not be impacted under this alternative but would not be preserved or managed.

Since the No Project Alternative would not provide any development, overall impacts would be reduced compared to the proposed project. However, certain benefits would not be realized under this alternative, including the provision of housing units as identified in the General Plan in an infill area; restoring, managing, and conserving biological resources; and enhanced uses and connectivity in the surrounding area. As the No Project Alternative would not develop the site or allow for housing, this alternative would not fulfill any of the project objectives. This alternative is further described in Section 4.4.3 in Chapter 4 of this EIR.

### 1.5.2 Existing Land Use Designation Alternative

Under the Existing Land Use Designation Alternative, the project site would be developed per the City's General Plan land use designation as an Industrial (I) land use. The purpose of the Industrial land use designation is to "provide a setting for the full range of indoor manufacturing, distribution, warehousing, processing, and general service uses that are adequately served by vehicular arterials and utilities. Industries that use hazardous materials, require heavy equipment, and/or that generate sustained noise levels are deemed appropriate for this Zone." The Industrial Zone is intended to implement and be consistent with the Industrial land use designation of the General Plan (City of San Marcos 2018). For the purpose of this analysis, and to provide a direct comparison against the proposed project, the existing land use alternative assumes development of 480,000 square feet of research and development area with a 220,000-square-foot (1,440 spaces), four-story parking structure. Similar to the project, over 17 acres would be set aside for biological preservation.

Because development of the Existing Land Use Designation Alternative would include grading and development of the same site, construction-related impacts would be similar to the proposed project and would require similar mitigation for impacts to air quality, biological resources, cultural resources and tribal cultural resources. However, the Industrial use of the site would be expected to result in greater impacts to air quality, greenhouse gas emissions, and hazards and hazardous materials, in comparison to the impacts resulting from the proposed project's residential use, and additional mitigation may be required. This alternative would promote infill development on site; however, it would not fulfill any of the project objectives, would not reduce or avoid significant environmental impacts, and would also not aid the City in achieving its Regional Housing Needs Assessment allocation. This alternative is further described in Section 4.4.4 in Chapter 4 of this EIR.

### 1.5.3 Reduced Development Footprint Alternative

Under the Reduced Development Footprint Alternative, the proposed project would be constructed to avoid all vernal pools and basins mapped across the site, including pools/basins found not to support vernal pool branchiopods “fairy shrimp.” In order to avoid all vernal pools and wetlands on site and achieve the 25% maximum building footprint requested by the Wildlife Agencies, the project development footprint would be constructed in three separate non-contiguous areas of the site: the northwest corner, the northeast corner, and the south-central portions of the site. In addition to the reduced development footprint, the unit count under this alternative would be reduced substantially from 449 units to 321 units. This alternative footprint would cover 8.3 acres of the 33.2-acre site, with 24.9 acres preserved.

The Reduced Development Footprint Alternative, while avoiding vernal pools, would result in impacts to the federally listed threatened and state-listed endangered thread-leaved brodiaea (*Brodiaea filifolia*). These impacts to thread-leaved brodiaea via implementation of this alternative would directly impact the majority of the thread-leaved brodiaea plant locations on site. Because the project site is identified as a critical and major population of this species in the region, impacts of this magnitude would need approval by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife and may not be to be allowable/feasible. Therefore, although this alternative is a reduced footprint and has minimal impacts to vernal pools in comparison to the proposed project, this alternative would cause a significant impact to the endangered thread-leaved brodiaea above the Narrow Endemic threshold, impacting approximately 53% of the thread-leaved brodiaea on site. For this reason, the proposed project is considered to be a more desirable approach in protecting/avoiding the sensitive habitat on site.

Additionally, this alternative would not meet project objectives 5 and 6. This alternative would provide 128 less housing units in comparison to the proposed project. Furthermore, the reduced number of units proposed would negatively impact the amount of affordable housing provided by the project, thus reducing housing opportunities for lower income families. Due to the site configuration, recreation amenities would be decentralized and disconnected making accessibility to each amenity difficult to each resident. The site configuration was designed to impact as small an area as possible to accommodate recommendations and requests of the Wildlife Agencies; however, this alternative layout results in long dead-end roads, which would potentially not meet Fire Department standards and create potential concerns for fire evacuation. Further, this detached site configuration creates challenges for utility service, drainage, and pedestrian connections.

Considering the analysis above, it is determined that impacts associated with implementation of the Reduced Development Footprint Alternative would be similar to those associated with development of the proposed project. However, as described above, the proposed project is considered to be a more desirable approach in protecting/avoiding the sensitive habitat on site, and development of this layout and reduced unit count may not be economically feasible for the applicant/developer. This alternative is further described in Section 4.4.4 in Chapter 4 of this EIR.

### 1.5.4 Environmentally Superior Alternative

Table 1-2 provides a qualitative comparison of the impacts for each alternative compared to the proposed project. As shown in Table 1-2, the No Project Alternative would eliminate all of the significant impacts identified for the project. However, the No Project Alternative would not meet any of the project objectives.

The California Environmental Quality Act Guidelines Section 15126.6(e)(2) states that if the No Project alternative is identified as the environmentally superior alternative, then an environmentally superior alternative should be identified among the other alternatives. However, after consideration of the alternatives identified to reduce potential environmental impacts compared to the proposed project, none of the other alternatives identified herein is environmentally superior to the proposed project. Although the Reduced Development Footprint would meet most of the project objectives and potentially reduce the severity of impacts related to air quality, biological resources, cultural resources, and tribal cultural resources in comparison to the proposed project due to the reduced unit count and reduced development footprint, such impacts under this alternative would still remain as less than significant with mitigation incorporated, similar to the proposed project. Additionally, although the Existing Land Use Designation Alternative would be consistent with the existing land use and zoning designation for the site and would promote infill development on site, it would not fulfill any of the project objectives, would not reduce or avoid significant environmental impacts, and would also not aid the City in achieving its Regional Housing Needs Assessment allocation. Therefore, in such a circumstance, it is sufficient that the EIR explain the environmental advantages and disadvantages of each alternative, as is done in Chapter 4 of this EIR.

**Table 1-2. Comparison of Impacts of Proposed Project and Alternatives**

| Environmental Topic             | Proposed Project | No Project Alternative | Existing Land Use Designation Alternative | Reduced Development Footprint Alternative |
|---------------------------------|------------------|------------------------|---|---|
| Aesthetics                      | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Air Quality                     | LTSM             | No Impact (Reduced)    | LTSM (Same or Greater)                    | LTSM (Reduced)                            |
| Biological Resources            | LTSM             | No Impact (Reduced)    | LTSM (Same)                               | LTSM (Reduced)                            |
| Cultural Resources              | LTSM             | No Impact (Reduced)    | LTSM (Same)                               | LTSM (Reduced)                            |
| Geology and Soils               | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Greenhouse Gas Emissions        | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |
| Hazards and Hazardous Materials | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |
| Hydrology and Water Quality     | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Land Use                        | LTS              | No Impact (Reduced)    | LTS (Reduced)                             | LTS (Same)                                |
| Noise                           | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Population and Housing          | LTS              | No Impact (Reduced)    | No Impact (Reduced)                       | LTS (Same)                                |
| Public Services                 | LTS              | No Impact (Reduced)    | LTS (Same or Reduced)                     | LTS (Same)                                |
| Recreation                      | LTS              | No Impact (Reduced)    | No Impact (Reduced)                       | LTS (Same)                                |
| Transportation                  | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |
| Tribal Cultural Resources       | LTSM             | No Impact (Reduced)    | LTSM (Same)                               | LTSM (Reduced)                            |

**Table 1-2. Comparison of Impacts of Proposed Project and Alternatives**

| Environmental Topic           | Proposed Project | No Project Alternative | Existing Land Use Designation Alternative | Reduced Development Footprint Alternative |
|-------------------------------|------------------|------------------------|---|---|
| Utilities and Service Systems | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Wildfire                      | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |

**Notes:** Impact Status: LTS = Less than Significant Impact; LTSM = Less than Significant with Mitigation.

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## 2 Project Description, Location, and Environmental Setting

As required by Section 15124 of the California Environmental Quality Act (CEQA) Guidelines, this chapter describes the proposed Pacific Specific Plan Project (proposed project), and includes a statement of the project objectives, a general description of the proposed project's technical, economic, and environmental characteristics, and a summary of the discretionary actions required to approve the proposed project. The proposed project provides guidelines and standards for the implementation of future development of the project site.

### 2.1 Project Objectives

Section 15124(b) of the CEQA Guidelines requires that an Environmental Impact Report (EIR) include a statement of the project objectives. The project objectives include the following:

1. Promote infill development and develop housing on a site that is served by existing utilities, services, and street access, within close proximity to public transportation and shopping centers.
2. Assist the City in implementing its housing goals by changing a non-residentially zoned site to a site where medium to high-density housing is allowed.
3. Provide a variety of housing types, including affordable housing, to align with the City's Regional Housing Needs Allocation requirements.
4. Restore, manage, and conserve sensitive onsite biological resources, to the extent feasible, while accommodating residential uses.
5. Design buildings, spaces, site layout, and uses that enhance and respect the character of the surrounding area in a manner typical to residential developments and planning principles and to enhance connectivity.
6. To the extent possible given site constraints, maximize the opportunity to provide medium-density housing for the City of San Marcos up to 15.0 dwelling units per acre, which is comparable to other medium-density housing developments in the City of San Marcos.

### 2.2 Project Description

The 33.2-acre project site is an infill site located in the western portion of the City of San Marcos (City), at the northwest corner of South Las Posas Road and Linda Vista Drive, composed of Assessor's Parcel Numbers 219-222-01, 219-222-02, 219-222-03, and 219-222-04. La Mirada Drive abuts the site's northern boundary, while South Pacific Street abuts the property's western boundary. The Grand Plaza shopping center is located directly across South Las Posas Road to the east. Light industrial uses are adjacent to the site's northern, southern, and western boundary, and Bradley Park is located across from the site's southwestern corner. Single- and multifamily residential uses are located to the west and south of Bradley Park. The project location and project site boundary are shown on Figures 2-1 and 2-2.

The project consists of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.09 acres of the 33.2-acre project site. Proposed residential units would include a mix of apartments within a five-story podium building, three-story rowhomes, three-story villas, and affordable flats within a four-story building.

68 of the 449 total units (15% of the total) would be designated as deed-restricted affordable units (alternatively, the project reserves the option to contribute to the affordable housing fund by paying the in-lieu fee). The project would also include a total of 927 parking spaces and 134,985 square feet (sf) of common open space area. The proposed project also includes landscaping, bio-retention areas, and circulation improvements. The remaining approximately 17.94 acres of the 33.2-acre project site would be preserved and restored as open space and habitat area. The proposed project would have a density of approximately 29.8 dwelling units per acre, not including the proposed open space and habitat area. With the open space and habitat area included, the density of the proposed project would be approximately 13.5 dwelling units per acre.

Proposed land uses are outlined in Table 2-1 below, and shown in Figure 2-5, Conceptual Site Plan.

**Table 2-1. Proposed Land Uses**

| Land Use  | Acreage |
|---|---------|
| Developed   | 15.09   |
| Preserved Open Space  | 17.94   |
| Roadway dedications as part of the proposed trail alignment | 0.17    |
| <i>Total Acreage</i>  | 33.2    |

| Housing Type     | Number of Units | Square Feet |
|------------------|-----------------|-------------|
| Rowhomes         | 101             | 1,200–1,890 |
| Villas           | 108             | 1,272–1,832 |
| Apartments       | 172             | 740–1,579   |
| Affordable Flats | 68              | 512–924     |

The project proposes a General Plan Amendment, Rezone, Specific Plan, Tentative Map, and Multi-Family Site Development Plan. The General Plan Amendment and Rezone would change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area (SPA) (refer to Figures 2-3a, 2-3b, 2-4a, and 2-4b). The Specific Plan has been prepared with the intent to provide a comprehensive plan to ensure the efficient development of a new residential community. The Specific Plan serves as both a policy document and a regulatory document for the systematic implementation of the policies and goals of the General Plan (the Specific Plan is included as Appendix M to this EIR). The Tentative Map presents specific lot configurations for the site. The Multi-Family Site Development Plan will configure the site for multi family dwelling units, street configuration, infrastructure, recreational open space, and private open space.

As part of the project, additional pedestrian connectivity would be provided along three of the adjacent street frontages. The project would provide a 6-foot sidewalk and Class II buffered bike lane along the project’s frontage on Pacific Street, a 12-foot urban trail (shared use path) along the project’s frontage on Linda Vista Drive, and a 12-foot urban trail (shared use path) along the project’s frontage on La Mirada Drive (please refer to Figure 2-5). In addition to the proposed sidewalk and trail connections, the project would add a bus stop and shelter with a bus turnout along South Las Posas Road adjacent to the development area and would install a four-way traffic signal at the intersection of Linda Vista Drive and Pacific Street. Furthermore, the project would upsize approximately 1,458 feet of existing water pipe from 8 inches to 12 inches and would convert approximately 1,400 feet of existing overhead power lines to underground along La Mirada.

## 2.2.1 Discretionary Actions Required of the City

As mentioned above, the requested project entitlements/discretionary actions by the City include:

- General Plan Amendment
- Rezone
- Specific Plan
- Tentative Subdivision Map
- Multi-Family Site Development Plan

Discretionary actions and projects proposed within the Specific Plan area are required to demonstrate consistency with the Specific Plan. The actions processed under the Pacific Specific Plan that require consistency prior to approval and/or adoption by the San Marcos City Council are the General Plan Amendment and Rezone of the project site from Industrial (I) to Specific Plan Area (SPA), a Tentative Subdivision Map (TSM), and a Multi-family Site Development Plan (MFS). The General Plan Amendment and Rezone would change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area. The Tentative Map presents specific lot configurations for the site. The Multi-Family Site Development Plan will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.

## 2.2.2 Project Characteristics

### Land Uses

As described above, the project consists of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.28 acres of the 33.2-acre project site. Figures 2-6a through 2-6d represent renderings of the proposed residential styles by type. As outlined in Table 2-1, the proposed residential units would include 101 rowhomes ranging in size from 1,200 sf to 1,890 sf and ranging in layout from 2 bedrooms to 4 bedrooms, 108 villas ranging in size from 1,272sf to 1,832 sf and ranging in layout from 2 bedrooms to 3 bedrooms, 172 apartments ranging in size from 740sf to 1,579 sf and ranging in layout from 1 bedroom to 3 bedrooms, and affordable flats ranging in size from 512sf to 924 sf and ranging in layout from studios to 2-bedroom units. The proposed land use designation for the project site is Specific Plan Area.

Of the 449 total units, 68 (15% of the total) are proposed as deed-restricted affordable units. It is the desired for the development to provide affordable housing in the form of constructed income restricted dwellings as part of the development. However, should state laws change or the project be affected by the timing or availability of tax increment financing (or other impediments to completing the overall project timely), the developer may satisfy the affordable housing requirement through the city's fee in-lieu program.

With approval of the proposed project, which includes the proposed GPA/Rezone, Specific Plan, Tentative Map, and Multi-Family Site Development Plan, the proposed development would comply with the allowable residential uses outlined in Chapter 20.250, Specific Plan Area Zone, of the City's Municipal Code.

## Open Space

The project would also include a total of 134,985 sf of common open space area. The remaining 17.94 acres of the 33.2-acre project site would be conserved as open space. Proposed common open space provided as part of the residential development is outlined in Table 2-2.

**Table 2-2. Proposed Common Open Space**

| Housing Type     | Common Open Space Required (sf) | Common Open Space Provided (sf) |
|------------------|---------------------------------|---------------------------------|
| Rowhomes         | 15,345                          | 40,876                          |
| Villas           | 19,004                          | 29,899                          |
| Apartments       | 18,806                          | 47,870                          |
| Affordable Flats | 4,028                           | 16,340                          |
| <b>Total</b>     | <b>57,183</b>                   | <b>134,985</b>                  |

**Note:** sf = square feet.

As shown in Table 2-2, the project would provide an additional 77,802 sf of common open space area than what is required by the City. In addition to the common open space area on-site, the project would provide private open space area, as outlined in Table 2-3.

**Table 2-3. Proposed Private Open Space**

| Housing Type     | Private Open Space Required (sf) | Private Open Space Provided (sf) |
|------------------|----------------------------------|----------------------------------|
| Rowhomes         | 5,050                            | 6,959                            |
| Villas           | 5,400                            | 6,180                            |
| Apartments       | 8,600                            | 11,180                           |
| Affordable Flats | 3,400                            | 3,898                            |
| <b>Total</b>     | <b>22,450</b>                    | <b>28,217</b>                    |

**Note:** sf = square feet.

As shown in Table 2-3, the project would provide an additional 5,767 sf of private open space area than what is required by the City. Approximately 62 sf of private open space would be provided per unit.

As discussed above, approximately 17.94 acres of the 33.2-acre site would be preserved and restored open space and habitat area. This area would not be usable by residents of the development. The preserved 17.94 acres are described in more detail in Section 3.3, Biological Resources.

## Circulation and Access

The project site is located within the undeveloped block bounded by South Las Posas Road, South Pacific Street, La Mirada Drive, and Linda Vista Drive.

The proposed project would be accessible from three points on La Mirada Drive, one gated emergency access only point on South Las Posas Road, and two points on Linda Vista Drive. The three access points on La Mirada Drive would serve the residences of the rowhomes, villas, and apartments; and the two access points on Linda Vista Drive would serve the residences of the affordable flats. The California Fire Code, along with the San Marcos Fire Department, administers the rules and regulations on fire access design. The proposed project would be designed to provide fire and emergency responders with suitable fire access roads, dimensions, and surfaces (Chapter 5,

Section 503.1 through Section 503.4 of the California Fire Code), an adequate number of emergency rated entrances to the community (Appendix D, Section D106, of the California Fire Code), and entryway gate access for first responders (Chapter 5 of the California Fire Code, Section 503.6).

The following roadway improvement recommendations proposed by the Local Transportation Analysis (LTA) (Appendix K to this EIR) would be required by condition of approval incorporated into the proposed project to ensure adequate pedestrian, bicycle, and transit facilities are provided consistent with City policies and guidelines:

1. Provide a 6' sidewalk and Class II buffered bike lane along the Project's frontage on Pacific Street.
2. Provide a 12' urban trail (shared use path) along the Project's frontage on Linda Vista Drive.
3. Provide a 12' urban trail (shared use path) along the Project's frontage on La Mirada Drive.
4. Provide transit stop amenities including bench, shelter, and trash can at the southbound stop at the intersection of Las Posas Road / La Mirada Drive located on the southwest corner of the intersection. Provide a bus turnout for this stop along the Project frontage.

As described in Appendix K and Section 3.15 of this EIR, the following intersection and roadway improvements would increase performance to acceptable or pre-project conditions:

1. At the intersection of Via Vera Cruz/Grand Avenue/SR-78 Eastbound Ramps, provide a fair share contribution for a dedicated southbound right turn lane on the SR-78 eastbound off-ramp. Given that this intersection operates at LOS E or worse under existing conditions and the deficiency is not directly caused by the Project, a fair share contribution is appropriate. With the construction of a dedicated southbound right-turn lane, the intersection is calculated to operate at substantially better than pre-project conditions in both Near- Term and Long-Term scenarios
2. At the intersection of Las Posas Road/Lar Mirada Drive, restripe the eastbound (La Mirada Drive) intersection approach to provide two (2) left turn lanes and one (1) shared through/right-turn lane and provide necessary signal modifications to accommodate new striping. This improvement will provide additional capacity and storage area for left turning traffic which will reduce queues and, in conjunction with the recommended two-way left turn lane on La Mirada Drive, improve accessibility for existing and proposed Project driveways.
3. At the intersection of Pacific Street/Linda Vista Drive, provide a traffic signal with the following lane geometry: Southbound – one left turn lane, one shared through/right turn lane; Westbound – one left turn lane, one shared through/right turn lane; Northbound – one left turn lane, one through lane, one right turn lane; Eastbound – one left turn lane, one through lane, one right turn lane. The traffic signal should provide protected left-turn phasing for all approaches.
4. At the intersection of Las Posas Road/Linda Vista Drive, in conjunction with the Urban Trail to be provided on Linda Vista Drive and to align with the proposed cross-section of Linda Vista Drive between Pacific Street and Las Posas Road the existing shared through/right-turn lane on the westbound approach will be converted to right turn only. The curb along the southwest corner of the intersection will also be revised to improve intersection alignment. This entails removal of the existing eastbound right-turn lane. No changes will be made to the southbound or northbound approaches. The following lane geometry is proposed: Southbound – one shared through/right-turn lane, one through lane, one left-turn lane; Westbound – one right-turn lane, one through lane, one left-turn lane; Northbound – one shared through/right-turn lane, one through lane, one left-turn lane; Eastbound – one shared through/right-turn lane, one through lane, one left-turn lane.

The project would be required to provide adequate on-site circulation for passenger vehicles, heavy vehicles, bicyclists, and pedestrians. Internal circulation within the project site, as well as proposed off-site improvements would be designed to comply with the following recommendations of the LTA, as required by conditions of approval:

1. All access points shall provide adequate driveway sight distance.
2. Any driveways located on La Mirada Drive or Linda Vista Drive should be located as far from Las Posas Road as practically allowable with other site constraints.
3. The easterly driveway on Linda Vista Drive should be limited to right turns only given its proximity to Las Posas Road. The analysis presented in this report assumes that the easterly driveway on Linda Vista Drive is limited to right turns.
4. The easterly driveway on La Mirada Drive may provide full access turning movements if queued vehicles at Las Posas Road do not interfere with access. Improvements are proposed in *Section 13.4* to provide additional capacity and storage area to left turns from eastbound La Mirada Drive to Las Posas Road, thus minimizing queues and potential interference with any Project driveways.
5. If appropriate, driveways to Las Posas Road should be limited to right turns only. The sole access point on Las Posas Road is proposed to be emergency-access only.
6. Provide a two-way left-turn lane on La Mirada Drive, between Pacific Street and Las Posas Road, to facilitate turning movements to/from Project driveways.

Please refer to Section 3.15, Transportation, of this EIR for a detailed description and analysis of project related traffic and transportation.

### Parking

The project would include a total of 927 parking spaces. Of the spaces, 234 would be designated for the proposed rowhomes, 254 spaces would be designated for the proposed villas, 359 spaces would be designated for the proposed apartments, and 80 spaces would be provided for the proposed affordable flats. Under existing conditions, on-street parking on adjacent streets is limited to Pacific Street and La Mirada Drive. On-street parking is prohibited on both sides of South Las Posas Road and along the project frontage on Linda Vista Drive.

For the affordable rental housing, which would be deed restricted for 55 years, the project meets the requirements of Section 65915, subdivisions (b) and (c). The applicant is therefore requesting the application of the parking ratios set forth in Section 65915(p)(1) be applied to the affordable rental project. Therefore, the project would comply with the required parking ratios for multifamily dwelling units and affordable housing projects, as shown in the parking summary calculations in Figure 2-5 and as outlined in Table 2-4.

**Table 2-4. Proposed Parking**

| Housing Type     | Parking Spaces Required | Parking Spaces Provided |
|------------------|-------------------------|-------------------------|
| Rowhomes         | 236                     | 234,234*                |
| Villas           | 252                     | 254**                   |
| Apartments       | 358                     | 359                     |
| Affordable Flats | 77*                     | 80                      |
| <b>Total</b>     | <b>923</b>              | <b>927</b>              |

**Notes:**

\* Per CA 65915 (see Appendix M, Specific Plan, for details).

\*\* Reciprocal access and parking agreement between Lot 1 and 2.

As shown in Table 2-4, the project would provide 4 more parking spaces than required. Of the 234 spaces provided for the rowhomes, 202 would be garage spaces and 32 would be uncovered. Of the 254 spaces provided for the villas, 216 would be garage spaces and 38 would be uncovered. Of the 359 apartment units, 172 would be garage spaces and 187 would be uncovered. The 80 parking spaces provided for the affordable flats would be uncovered. A minimum of 5% of parking spaces required would be equipped with EV charging stations or as otherwise required by CALGreen, whichever is more significant. Per the City's Municipal Code, residential projects that provide required uncovered parking shall assign parking spaces by dwelling unit. Spaces shall be clearly marked to denote assigned parking. For the convenience of tenants and guests, parking spaces shall be located as close as possible to the unit or common facility it is intended to serve (City of San Marcos 2012a).

### Alternative Transportation

The project site is located within 0.25 miles from two bus stops serving both Route 347 and Route 445 located along South Las Posas Road. The closest bus stops to the project site are located near the intersection of South Las Posas Road/La Mirada Drive and the intersection of South Las Posas Road/Linda Vista Drive on both sides of the street. The project site is also approximately 1 mile from Palomar College Station.

The project proposes to upgrade the existing bus stop along its frontage with enhanced amenities and include clear and direct access to the adjacent bus stops located near both the north and south ends of the site along South Las Posas Road.

### Public Utilities

#### Water Facilities

There is existing 855 Zone and 920 Zone water facilities in the vicinity of the project site. The 920 Zone facilities consist of 24-inch and 30-inch transmission lines that do not provide direct service to properties in the area. Water service to existing development in the area is from connections to the 855 Zone, which includes 12-inch lines in Linda Vista Drive and Pacific Street and 8-inch lines in La Mirada Drive and South Las Posas Road.

The property is within the Vallecitos Water District for both water and sewer service. Multifamily residential sites in Vallecitos Water District are typically served by on-site private water systems. Private systems consist of separate fire and domestic systems on site. Private fire systems typically supply onsite fire hydrants and building fire sprinkler systems and require a backflow preventer at the connection to the public water system.

Water service for potable residential use and fire service to the project site would be provided by VWD. The project would connect to existing 12-inch water lines in Linda Vista Drive and South Pacific Street. Additionally, the project would connect to and upsize approximately 1,458 feet of existing 8-inch ACP to 12-inch PVC along La Mirada Drive from South Las Posas Road to Pacific Street. Water connections are provided in three separate systems supplying the proposed residential areas independently. An 8-inch fire main water line and a 6-inch domestic potable water line would connect the proposed condominiums to existing water mains in La Mirada Drive and South Pacific Street. Water would connect to the proposed villas and rowhomes via a connection underneath each driveway entering at La Mirada Drive and the second connection at South Pacific Street. The proposed apartments would provide an 8-inch fire main water line and 6-inch domestic potable water line connecting underneath the driveway to existing infrastructure in La Mirada Drive and a second fire connection in South Las Posas Road. One water main connection

would be made for the proposed affordable units. An 8-inch fire main and 6-inch domestic potable water line would connect the affordable units to an existing water main in Linda Vista Drive.

### Sewer Facilities

There are existing gravity sewer lines on all sides of the project site, including 8-inch gravity sewer lines in South Pacific Street and La Mirada Drive, a 15-inch sewer line in Linda Vista Drive, and parallel 10-inch and 18-inch sewer lines in South Las Posas Road. These gravity sewers all convey flow to South Las Posas Road where they are conveyed south to San Marcos Boulevard and eventually to District Lift Station Number 1. Sewer service would connect to three separate sewer systems within the project site. The proposed condominiums would provide two 8-inch connections to the existing 8-inch sewer main in La Mirada Drive. The proposed apartments would connect an 8-inch sewer line to the either existing 10-inch or 15-inch sewer main in South Las Posas Road. The proposed affordable units would connect one 8-inch sewer line to the existing 15-inch line in Linda Vista Drive. Project utilities are further described and analyzed in Section 3.17, Utilities and Service Systems, of this EIR.

### Site Drainage

Stormwater arrives on site via natural rainfall only. Rainfall runoff from the site typically only occurs during a significant storm event. Storm water that does accumulate on site generally drains in a south-easterly direction toward the northwest corner of Linda Vista Drive and South Los Posas Road. This drainage is collected in a corrugated metal pipe riser that drains to a reinforced concrete box in South Las Posas Road. The remainder of the site surface drains to the surrounding streets. Per the San Diego Region Municipal Separate Storm Sewer System Permit requirements, stormwater flows generated by the project site would be conveyed to biofiltration basins and detention storage, and all treated runoff from the site would follow the same drainage pattern as currently exists. The proposed biofiltration basins and detention storage would be sized to mitigate peak 100-year runoff rates. Project plans have considered stormwater flows and designed the grading plan to direct all surface runoff to stormwater vaults and catch basins in private drives and drive aisles. Development of the proposed project would not substantially alter the existing drainage patterns on the site or in the immediate area. Storm drainage components would properly handle runoff to meet regulatory requirements and to ensure that post-development run-off quantifies rates that are equal to or less than pre-development conditions. The proposed project would incorporate appropriate design of on- and off-site drainage facilities and would prepare and implement a Storm Water Pollution Prevention Plan, Stormwater Quality Management Plan, and Best Management Practices.

### Electrical and Gas

Electricity and natural gas would be provided by San Diego Gas & Electric (SDG&E). Electrical facilities throughout the City include a combination of aboveground and below-ground electrical distribution lines and utilities structures. The City fiber-optic network is facilitated by a 72-strand fiber-optic line that runs on various streets throughout the City. All major arterials in the City have implemented fiber optics. The proposed project would require constructing private utility lines to connect to existing electrical lines and natural gas pipeline within S. Rancho Santa Fe Road. SDG&E would be responsible for the installation of necessary cables, connectors, and pad-mounted equipment as required.

To the extent feasible, the developer would convert approximately 1,400 feet of existing 69-kilvolt (kV) overhead power lines to underground along La Mirada, at the discretion of San Diego Gas and Electric. A guy pole may be retained in the right-of-way at the northwest corner of the project site in order to support the transition back to overhead lines west of the project site. No other new overhead utilities are proposed to serve the project. Final utility equipment design will be coordinated with a utility consultant, the City, and SDG&E. Undergrounding of the



69 kV distribution system would be subject to applicable federal, state, and local laws and geotechnical design recommendations for undergrounding of utilities.

In accordance with current Building Code, all buildings will be equipped with photovoltaic panels to provide solar energy to the homes. In addition, homes will include energy conservation features such as spray foam insulation, thermal breaks, low-e windows, advanced thermostats, energy star appliances, and sealed insulated ducts. Homes will be Energy Star Certified to meet U.S. Environmental Protection Agency standards.

SDG&E maintains a gas distribution system within La Mirada Drive, South Las Posas Road, Linda Vista Drive, and Pacific Street. If the project utilizes gas utilities, the gas lines will be extended to the developable area within the project site through the same joint trench alignment as electric, cable, and telephone facilities. It is likely that either a 3-inch or 4-inch pipeline will be utilized to deliver gas to the project site.

Cable and telephone service will be provided through Cox Communications, AT&T, or another telecommunications provider with infrastructure in the area. Cable connections will be stubbed for the property at the time of construction for dry utilities. Residents will be able to choose to connect to cable and telephone via several packages offered through the telecommunications provider.

## Project Design Standards and Features

The Pacific Specific Plan prepared for the project site outlines Land Use Development Standards and Design Standards in Chapters 3 and 4 of the Specific Plan (Appendix M to this EIR). The Land Use Development Standards regulate the distribution and intensity of land uses and establishes development standards that would govern all future development within the Pacific Specific Plan area. The Design Standards include architectural design guidelines that supplement the Land Use Development Standards. The Design Standards provide regulations for architectural style, open space design, and landscaping within the Pacific Specific Plan area. The proposed project would be required to comply with the Land Use Development Standards and all Design Standards outlined in the Pacific Specific Plan. As part of the project, approximately 517 trees would be planted on-site.

## 2.3 Environmental Setting

### 2.3.1 Existing Land Uses and Setting

The project site is currently vacant and has no existing impervious areas (see Figure 2-2, Project Site and Surroundings). The site surface conditions generally consist of rolling unimproved earthen terrain, with native grasses and vegetation. The project site is immediately bordered by South Las Posas Road to the east, Linda Vista Drive to the south, La Mirada Drive along the northern boundary and Pacific Street abuts the property's western boundary. The project site is surrounded by industrial uses to the north, south, and west, and commercial uses to the east, specifically the Grand Plaza shopping center is located directly across Las Posas Drive.

The 24-acre Bradley Park is located across from the sites southwestern corner. Residential uses are located to the south and west of Bradley Park. The project site is located in an urban setting and is considered an infill site. Surrounding land uses outside of the immediately adjacent industrial and commercial land uses include designated parks, single and multifamily residential, and schools/educational facilities. The closest freeway is State Route 78 located approximately 0.44 miles north of the project site.

## 2.3.2 Existing Land Use and Zoning Designations

### Existing General Plan Land Use Designation

As described above, the existing General Plan land use designation for the project site is Industrial (I). Development allowed under this land use designation must be consistent with those uses outlined in the City's municipal code and zoning ordinance, as well as the Industrial land use designation of the General Plan. Please refer to Figure 2-3a, General Plan Land Use.

### Existing Zoning Designation

Existing zoning of the project site is Industrial (I). The purpose of the Industrial land use designation is to "provide a setting for the full range of indoor manufacturing, distribution, warehousing, processing, and general service uses that are adequately served by vehicular arterials and utilities. Industries that use hazardous materials, require heavy equipment, and/or that generate sustained noise levels are deemed appropriate for this Zone" (City of San Marcos 2018.) The Industrial Zone is intended to implement and be consistent with the Industrial land use designation of the General Plan. (City of San Marcos 2018) Please refer to Figure 2-4a, Existing Zoning.

## 2.3.3 Regional Setting

The following provides a general description of various aspects of the proposed project's environmental setting. Additional descriptions of the proposed project's environmental setting as it relates to environmental issue areas can be found in Chapters 3, Environmental Analysis, and 5, Environmental Effects Found Not to Be Significant, of this EIR.

### Climate

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average summertime high temperature in the region is approximately 74°F. The average wintertime low temperature is approximately 49°F. Average precipitation in the local area is approximately 10 inches per year, with the bulk of precipitation falling between December and March (WRCC 2017).

### Air Basin

The City and project site is within the San Diego Air Basin (SDAB) and is under the jurisdiction of the San Diego Air Pollution Control District. The SDAB is one of 15 air basins that geographically divide the State of California. The SDAB lies in the southwest corner of California and comprises the entire San Diego region, covering 4,260 square miles, and it is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB is currently classified as a federal nonattainment area for ozone and a state nonattainment area for particulate matter less than or equal to 10 microns (coarse particulate matter), particulate matter less than or equal to 2.5 microns (fine particulate matter), and ozone (Appendix B to this EIR).

## Soils

Based on field observations and review of published geologic maps, the project site is locally underlain by recent alluvium and Santiago Formation bedrock. Undocumented fill soils were observed on-site as sporadic end-dump piles from illegal dumping (Appendix F). These soils are not considered suitable for support of structural site improvements but may be reused as engineered fill if properly processed and placed.

The most recent regional geologic map reviewed showed the geology for the eastern portion of the site along South Los Posas Road to be alluvial deposits; however, based on the site evaluation, alluvium appears to be limited to a smaller extent along a natural drainage swale along South Los Posas Road. The alluvium generally consisted of silty fine sands. Additionally, the most recently dated regional geologic map showing the overall site geology indicates Santiago Formation sedimentary bedrock at the surface on the western majority of the project site; however, based on the project site evaluation the Santiago Formation appears to be near the surface across most of the project site. The Santiago Formation was observed as a dark brown to black clay over sandstone (Appendix F).

## Terrain and Topography

The project site is characterized by undeveloped terrain and has no existing impervious areas. As previously described, site surface conditions generally consist of rolling unimproved earthen terrain with native grasses and vegetation. Under existing conditions, total relief across the site is on the order of 28 feet with drainage directed towards the southern corner of the site.

## Watersheds and Hydrology

The City's General Plan area, including the project site, is located within the Carlsbad Hydrographic Unit. The Carlsbad Hydrographic Unit (904.00) is a triangular area covering approximately 210 square miles. This hydrologic unit is bordered by San Luis Rey Hydrologic Unit to the north and San Dieguito Hydrologic Unit to the east and south.

The Carlsbad Hydrographic Unit is separated into four primary sub-watersheds based on topographical drainage areas to creek systems, including 904.1 San Luis Rey River (Moosa Creek), 904.3 Agua Hedionda Creek, 904.5 San Marcos Creek, and 904.6 Escondido Creek. The project site is located within the City's Business/Industrial District Neighborhood, which is associated with the Agua Hedionda Creek watershed and San Marcos Creek watershed. The Carlsbad Hydrologic Unit includes one small coastal lagoon (Loma Alta Slough) and four major coastal lagoons, including Buena Vista, Agua Hedionda, Batiquitos, and San Elijo (City of San Marcos 2012b).

## Habitat

As shown on Figures 3.3-1 through 3.3-4 in Section 3.3 of this EIR, vernal pools have been identified on the project site. In addition to vernal pools, other sensitive natural communities and habitats that have been identified on-site include Diegan Coastal Sage Scrub, Native Grasslands, and Non-Native Grasslands. Please refer to Section 3.3 of this EIR for a detailed analysis of biological resources.

## 2.3.4 Public Services

The following provides a general description of public services within the City that would serve the proposed project. Additional detail on public services can be found in Section 3.13, Public Services, of this EIR.

## Fire Protection

The project site is located within the San Marcos Fire Protection District boundary. The City of San Marcos Fire Department (SMFD) would provide fire protection and emergency medical services to the project. The SMFD provides structural fire protection and advanced life support-level emergency medical services within the City limits; unincorporated territory adjacent to the City's northern boundary; discontinuous, unincorporated areas between the City of San Marcos and the City of Escondido; and the community of Lake San Marcos. The SMFD operates two Fire Stations (Stations 1 and 3) that would respond to an incident at the proposed project site.

## Police Protection

Police protection services for the proposed project would be provided by the San Diego County Sheriff's Department under contract with the City. The project site would be served by the Sheriff's San Marcos Station, located at 182 Santar Place in the northeast quadrant of the City.

## Schools

The project site is located within the San Marcos Unified School District, which provides kindergarten through 12th grade education. The San Marcos Unified School District is 44 square miles in size and encompasses most of the City of San Marcos and portions of the Cities of Vista, Escondido, and Carlsbad, as well as unincorporated areas of the County of San Diego between these cities. There are a variety of public and private schools in the vicinity of the project site. The schools expected to serve the project include La Mirada Academy and San Marcos High School. Will-serve letters issued by the District would be required for the future development proposal to ensure servicing schools have adequate capacity.

Higher education campuses are also located within the City, including Palomar Community College, and California State University San Marcos.

## Parks

There are 16 major community parks and 18 mini parks located throughout the City. The City residents in the project area are currently served by several nearby parks. The closest park to the project site is Bradley Park located immediately adjacent to the project site to the west. This 24-acre park offers baseball diamonds, a soccer field, a playground, picnic areas, restrooms, and parking.

## Libraries

The City is served by the San Diego County Library, San Marcos Branch located at 2 Civic Center Drive, approximately 2 miles east of the project site.

## 2.4 Intended Uses for EIR

This EIR was prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.), CEQA Guidelines (14 CCR 15000 et seq.), and the City's Environmental Review Procedures.

The EIR is an informational document that will provide the City's decision makers, public agencies, responsible and trustee agencies, and members of the public with information about (1) the potential for significant adverse environmental impacts that would result from the development of the proposed project, (2) possible ways to minimize

any significant environmental impacts, and (3) feasible alternatives to the proposed project that would reduce or avoid significant impacts associated with the proposed project (California Public Resources Code, Section 21002.1[a]; 14 CCR 15121[a]). Responsible and trustee agencies may use this EIR to fulfill their legal authority to issue permits for the proposed project. The analysis and findings in this EIR reflect the independent judgment of the City.

### Lead Agency

As defined by CEQA Guidelines Section 15367, a “Lead Agency” means the public agency that has the principal responsibility for carrying out or approving a project. The City is the lead agency for the proposed project because it will perform the entitlement processing of the proposed project. As the designated lead agency, the City has assumed responsibility for preparing this EIR, and the analysis and findings in this EIR reflect the City’s independent judgment. When deciding whether to approve the proposed project, the City will use the information in this EIR to consider potential impacts to the physical environment associated with the proposed project.

### Responsible Agencies

As defined by CEQA Guidelines Section 15381, a “Responsible Agency” includes all public agencies, other than the lead agency, that have discretionary approval over the project, such as the Vallecitos Water District. Subsequent to certification of the Final EIR, agencies with permitting authority over all or portions of the proposed project will use the Final EIR as the basis for their evaluation of environmental effects related to the proposed project that will culminate with the approval or denial of applicable permits.

### Trustee Agencies

As defined by CEQA Guidelines Section 15386, a “Trustee Agency” is a public agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California. For example, trustee agencies include the California Department of Fish and Wildlife (CDFW) with regard to the fish and wildlife of the state, to designated rare or endangered native plants, and to game refuges, ecological reserves, and other areas administered by CDFW.

## 2.4.1 Scope of the EIR

For the proposed project, the City determined that a project EIR, as defined by CEQA Guidelines, Section 15161, was required. The City made this determination based on the development proposed for the project site and the discretionary actions requested. This EIR evaluates all subject areas listed in Appendix G to the CEQA Guidelines with the exception of those subject areas determined to have no impact on the environment, which are addressed in Chapter 5 of this EIR. Chapter 3 of this EIR evaluates the following subject areas in detail: aesthetics, air quality, biological resources, cultural resources, energy conservation, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, cumulative impacts, and growth-inducing impacts. Chapter 4 analyzes alternatives to the proposed project.

As a “Project EIR,” this EIR is “focused primarily on the changes in the environment that would result from the project” (CEQA Guidelines Section 15161). In addition, as a Project EIR, this EIR examines all phases of the proposed project including planning, construction, and operation (CEQA Guidelines Section 15161). Where environmental impacts have been determined to be significant, this EIR recommends mitigation measures directed at reducing or avoiding those significant environmental impacts. Alternatives to the proposed project are identified to evaluate whether there are ways to minimize or avoid significant impacts associated with the proposed project.

## 2.4.2 Notice of Preparation and Scoping

CEQA establishes mechanisms to inform the public and decision makers about the nature of the proposed project and the extent and types of impacts that the proposed project and alternatives to the proposed project would have on the environment should the proposed project or alternatives be implemented. Pursuant to Section 15082 of the CEQA Guidelines, the City circulated a Notice of Preparation (NOP) dated June 1, 2022, to interested agencies, organizations, and parties. The NOP was also sent to the State Clearinghouse at the California Office of Planning and Research. The State Clearinghouse assigned a state identification number (SCH No. 2022050650) to this EIR.

The NOP is intended to encourage interagency and public communication regarding the proposed action so that agencies, organizations, and individuals are afforded an opportunity to respond with specific comments and/or questions regarding the scope and content of the EIR. A public scoping meeting was held on June 21, 2022, at San Marcos City Hall (1 Civic Center Drive) to gather additional public input. The 30-day public scoping period ended on July 1, 2022. Comments received during the NOP public scoping period were considered part of the preparation of this EIR. The NOP and written comments are included in Appendix A to this EIR. Comments covered numerous topics, including biological resources, cultural resources, traffic, parking, land use, public services, population and housing, and noise. Public scoping comments regarding the proposed project's potential impact on the environment have been incorporated in the analysis in Chapters 3, 4, 5, and 6 of this EIR.

## 2.4.3 Draft EIR and Public Review

This Draft EIR was prepared under the direction and supervision of the City. The Draft EIR will be made available to members of the public, responsible agencies, and interested parties for a 45-day public review period in accordance with CEQA Guidelines, Section 15105.

Public review of the Draft EIR is intended to focus “on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated” (14 CCR 15204). The Notice of Completion of the Draft EIR will be filed with the State Clearinghouse as required by CEQA Guidelines, Section 15085. In addition, the Notice of Availability of the Draft EIR will be distributed pursuant to CEQA Guidelines, Section 15087. Interested parties may provide comments on the Draft EIR in written form. This EIR and related technical appendices are available for review during the 45-day public review period at the following locations:

City of San Marcos Planning Division  
1 Civic Center Drive  
San Marcos, California 92069

San Diego County Library San Marcos Branch  
2 Civic Center Drive  
San Marcos, California 92069

City of San Marcos website: <https://www.san-marcos.net/departments/development-services/planning/environmental-review-sustainability/environmental-documents>.

Interested agencies and members of the public may submit written comments on the adequacy of the Draft EIR to the City's Development Services Department at the address above, addressed to Saima Qureshy, Principal Planner, or emailed at [squreshy@san-marcos.net](mailto:squreshy@san-marcos.net). Comments on the Draft EIR must be received by the close of business on the last day of the 45-day review period. Electronic filing and posting of the EIR would be in compliance with Assembly Bill 819, as applicable.

## 2.4.4 Final EIR Publication and Certification

Once the 45-day public review period has concluded, the City will review all public comments on the Draft EIR and provide a written response to all written comments pertaining to environmental issues as part of the Final EIR. The Final EIR will include all written comments received during the public review period, responses to comments, and, if applicable, edits and errata made to the Draft EIR. The City will then consider certification of the Final EIR (14 CCR 15090). If the EIR is certified, the City may consider project approval (14 CCR 15092).

When deciding whether to approve the proposed project, the City will use the information provided in the Final EIR to consider potential impacts to the physical environment. The City will also consider all written comments received on the Draft EIR during the 45-day public review period in making its decision to certify the Final EIR as complete and compliant with CEQA and in making its determination whether to approve or deny the proposed project. Environmental considerations, as well as economic and social factors, will be weighed by the City to determine the most appropriate course of action.

Prior to approving the proposed project, the City must make written findings and adopt a Statement of Overriding Considerations with respect to any significant and unavoidable environmental effect identified in the Draft EIR (14 CCR 15091, 15093). If the proposed project is approved, the City will file a Notice of Determination with the State Clearinghouse and San Diego County Clerk within 5 working days after project approval (14 CCR 15094.)

Subsequent to certification of the Final EIR, agencies with permitting authority over all or portions of the proposed project may use the Final EIR's evaluation of the proposed project's environmental effects in considering whether to approve or deny applicable permits.

## 2.4.5 Matrix of Project Approvals and Permits

Consistent with the City's General Plan and San Marcos Municipal Code Zoning Ordinance Title 20, the proposed project requires certain entitlements be submitted, reviewed, and approved by the City (see Table 2-5). The requested entitlements include a General Plan Amendment and Rezone to change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area (SPA), a Tentative Map, which will present specific lot configurations for the site, a Multi-Family Site Development Plan, and a Specific Plan, which will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.

The City will use this EIR and associated documentation in its decision to approve or deny the required discretionary permits. The City may also use this EIR in its consideration of any future development proposal, together with any additional or supplemental information or CEQA analysis as may be required. Other responsible and/or trustee agencies can use this EIR and supporting documentation in their decision-making process to issue additional approvals. These additional approvals may include, but are not limited to, approval of sewer and water connections and resource agency approval of biological resources mitigation.

**Table 2-5. Required Actions and Approvals**

| Agency  | Required Action/Approval  |
|---|---|
| City of San Marcos<br>(Lead Agency)               | General Plan Amendment – A General Plan Amendment would be required to re-designate the project site from Industrial (I) (as currently designated by the City of San Marcos) to Specific Plan Area (SPA).   |
|   | Rezone - A rezone would be required to re-designate parcels 219-22-01, 219-22-02, 219-22-03, and 219-22-04 from an Industrial (I) General Plan Land Use designation to Specific Plan Area (SPA).  |
|   | Tentative Map – A Tentative Map will present specific lot configurations for the site.  |
|   | Multi-Family Site Development Plan – A Multi-Family Site Development Plan will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.  |
|   | Specific Plan – A Specific Plan would be required to provide a comprehensive plan to ensure the efficient development of a new residential community. The Specific Plan serves as both a policy document and a regulatory document for the systematic implementation of the policies and goals of the General Plan. |
|   | City review and approval of project grading plans and issuance of building permits.   |
|   | Environmental Impact Report Approval and Certification.   |
| United States Army Corps of Engineers (USACE)     | It is anticipated that a 404 Permit from USACE would be needed.   |
| Regional Water Quality Control Board (RWQCB)      | It is anticipated that a 401 Certification from RWQCB would be needed. If the wetlands or waters on-site are ruled non-jurisdictional by USACE, it is anticipated that a Waste Discharge Requirements Permit from RWQCB would be required.  |
| California Department of Fish and Wildlife (CDFW) | It is anticipated that a 1602 agreement from CDFW would be needed.  |

**Note:** Implementation of the proposed project would affect federally protected wetlands and other potential jurisdictional features. There is the potential for federal USFWS permits.

## 2.5 Project Inconsistencies with Applicable Regional and General Plans

Throughout Chapter 3 of this EIR, the proposed project has been evaluated in relation to the applicable goals, policies, and objectives of the City’s General Plan and San Marcos Municipal Code Zoning Ordinance Title 20 (Section 3.10, Land Use and Planning), San Diego Forward: The Regional Plan (Section 3.10, Land Use and Planning), Regional Air Quality Strategy (Section 3.2, Air Quality), San Diego Air Pollution Control District policies (Section 3.2, Air Quality), City’s Climate Action Plan (Section 3.7, Greenhouse Gas Emissions), Regional Water Quality Control Board plans and permits (Section 3.9, Hydrology and Water Quality), the Multiple Habitat Conservation Program (Section 3.3, Biological Resources), Airport Land Use Compatibility Plans (Sections 3.8, Hazards and Hazardous Materials; 3.10, Land Use and Planning; and 3.11, Noise), and various other applicable regional and local plans and policies.

As described previously, a General Plan Amendment and Rezone is proposed in order to change the designated land use and zoning for the site from Industrial (I) to Specific Plan Area (SPA), to allow for the proposed residential development of the project site. As discussed in Section 3.10 of the EIR, the proposed project would be consistent



with the applicable goals of the various elements and overall vision of the City’s General Plan, including the General Plan Housing Element.

## 2.6 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

CEQA requires an EIR to analyze cumulative impacts. Section 15355 of CEQA Guidelines defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Section 15130 of the CEQA Guidelines provides guidance for analyzing significant cumulative impacts in an EIR. The discussion of cumulative impacts “need not provide as great detail as is provided for the effects attributable to the project alone,” but instead is to be “be guided by standards of practicality and reasonableness” (14 CCR 15130[b]). The discussion should also focus only on significant effects resulting from the project’s incremental effects and the effects of other projects. According to Section 15130(a)(1), “an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.”

Cumulative impacts can result from the combined effect of past, present, and future projects located in proximity to the project under review. Therefore, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future developments whose impacts might compound or interrelate with those of the project under review.

According to Section 15130(b)(1) of the CEQA Guidelines, a cumulative impact analysis may be conducted and presented by either of two methods:

- A. a list of past, present, and probable activities producing related or cumulative impacts; or
- B. a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

With the exception of the impact analyses of air quality and greenhouse gas emissions, the cumulative list approach has been used in this cumulative analysis, as discussed below. The cumulative impacts of air quality and greenhouse gas emissions have been evaluated using the summary of projections method because the geographic scope of such impacts is on an air basin and global scale.

An inventory of past, present, and reasonably foreseeable future projects within the vicinity of the project site is presented in Table 2-6 and Figure 2-7, Cumulative Project Map.

**Table 2-6. Cumulative Projects**

| No.                       | Status             | Project Name/Developer   | Location   | Description   |
|---------------------------|--------------------|--------------------------|--|---|
| <b>City of San Marcos</b> |                    |                          |  |   |
| 1                         | Under Construction | Block 3 Student Housing  | NW corner of Campus Way and Barham Drive             | 342 bed student housing development, with a buildout year of 2022                 |
| 2                         | Approved           | Carmel Street Apartments | Southwest corner of Industrial St. and Carmel Street | 170-unit multifamily affordable housing development, with a buildout year of 2023 |

**Table 2-6. Cumulative Projects**

| No. | Status             | Project Name/Developer     | Location  | Description  |
|-----|--------------------|----------------------------|---|--|
| 3   | Under Construction | Kaiser Permanente Plan     | Craven Rd.  | 206 bed hospital, with a buildout year of 2023   |
| 4   | Approved           | Discovery Village North    | Craven Rd.  | Office/Commercial/Residential on 41 acres  |
| 5   | Proposed           | Main Square                | SE corner of San Marcos Blvd. and McMahr Rd.      | Mixed use development with a 468-units apartment complex, and 44,007 sf of commercial space                                    |
| 6   | Approved           | San Elijo Hills            | San Elijo Rd.                                     | 11,711 sf Commercial development with a buildout year of 2022  |
| 7   | Approved           | Pacific Commercial         | NE corner of Grand Ave. and Pacific St.           | 122-room hotel, with a buildout year of 2022   |
| 8   | Under Construction | San Marcos Highlands       | North end of N. Las Posas Rd.                     | 187-unit Single-Family Residential development, with a buildout year of 2023   |
| 9   | Complete           | El Dorado II Specific Plan | Southwest corner of Richmar Ave. and Pleasant Way | Mixed use development consisting of a 72-unit apartment complex and 2,000 sf of specialty retail, with a buildout year of 2022 |
| 10  | Under Construction | Villa Serena               | Richmar Ave. and Marcos St.                       | 12-unit apartment complex, with a buildout year of 2023  |
| 11  | Approved           | Montiel Rd Partners        | Montiel Rd.                                       | 8-unit Single-Family Residential development, with a buildout year of 2022   |
| 12  | Approved           | Meadowlark Canyon LLC      | San Marcos Blvd.                                  | 33-unit Single-Family Residential development  |
| 13  | Approved           | Mariposa- Phase 1          | Richmar Ave. and Los Olivos Dr.                   | 66-unit apartment development, with a buildout year of 2022  |
| 14  | Proposed           | Mariposa- Phase 2          | Richmar Ave. and Los Olivos Dr.                   | 66-unit apartment development  |
| 15  | Under Construction | Murai-Sab                  | N. Las Posas Rd.                                  | 89-unit Single-Family Residential with a buildout year of 2022   |
| 16  | Approved           | Pacifica San Marcos        | S. Rancho Santa Fe Rd. and Creek St.              | Mixed use development of 31-unit apartment complex and 4,375 sf commercial space with a buildout year of 2022                  |
| 17  | Under Construction | Discovery Village South    | Future Discovery St.                              | 220-unit Single-Family Residential, with a buildout year of 2022   |
| 18  | Approved           | Breaker Real Estate        | SE corner of Twin Oaks Valley Rd and Richmar Ave. | 174 bed Assisted Living Facility   |

**Table 2-6. Cumulative Projects**

| No. | Status             | Project Name/Developer       | Location                                     | Description   |
|-----|--------------------|------------------------------|--|---|
| 19  | Approved           | Hall Land Company            | Barham Drive, east of Woodland Pkwy.         | 151-unit multifamily condominium development  |
| 20  | Under Construction | Carkel SM-Starbucks          | SE corner of San Marcos Blvd. and Bent Ave.  | Drive-thru Restaurant with a buildout year of 2023  |
| 21  | Approved           | Southlake Park Phase 1       | Twin Oaks Valley Rd., South of Village Dr.   | Parking Lot, Fishing Dock   |
| 22  | Approved           | MacDonald Group              | San Marcos Blvd. (Former Sears site)         | Mixed use development with 82-unit apartment complex and 5,000 sf of commercial space   |
| 23  | Under Construction | Mission 316 West             | Mission Rd at Woodward St. (east side)       | 67 dwelling unit Multifamily Condominium development with a buildout year of 2023   |
| 24  | Proposed           | Lanikai                      | Mission Rd. at Woodward St. (west side)      | 115-unit Senior Living Complex  |
| 25  | Approved           | Artis Senior Housing         | San Elijo Rd. at Paseo Plomo                 | 64 bed Assisted Living Facility   |
| 26  | Under Construction | Sunrise                      | Barham Drive (near east City limit)          | 192 dwelling unit Multifamily Condominiums  |
| 27  | Under Construction | Jump Ball LLC                | W. San Marcos Blvd. at Bent Ave.             | Drive-thru Restaurant   |
| 28  | Proposed           | Montiel Commercial           | 2355/2357 Montiel Rd.                        | 32,971 sf Office building   |
| 29  | Under Construction | California Allstars          | East side of Twin Oaks Valley Rd.            | 28,137 sf. Industrial Building to be completed in 2022  |
| 30  | Proposed           | Budhi Hill Buddhist Center   | Poinsettia Ave. s/o Linda Vista Dr.          | Development of a 36,501 sf. Fellowship Hall and 7,612 sf. Monk Dormitory  |
| 31  | Proposed           | Mercy Hill and Marian Center | Borden Rd.                                   | 31,105 sf. Christian Center   |
| 32  | Under Construction | Karl Strauss Brewery         | Las Posas Rd. and Los Vallecitos Blvd.       | 10,528 sf. Tasting Room, Commercial Kitchen, Entertainment Room within existing commercial building with a buildout year of 2023                      |
| 33  | Approved           | Kiddie Academy               | Twin Oaks Valley Rd., northeast of Windy Way | 11,430 sf Preschool   |
| 34  | Proposed           | Edenpark                     | 1601 San Elijo Rd.                           | Adaptive reuse of existing structures for recreation, sports, and related personal services, and related commercial uses with a buildout year of 2022 |

**Table 2-6. Cumulative Projects**

| No. | Status             | Project Name/Developer                            | Location  | Description  |
|-----|--------------------|---|---|--|
| 35  | Under Construction | San Marcos Creek Phase 1<br>CIP - various numbers | Via Vera Crux Bridge, Bent Ave. Bridge, Discovery Street widening, Levee construction, Promenade, and Creek Channel Wetland Restoration | San Marcos Creek Phase 1 Infrastructure, Discovery Street (east/west segment), Bent Avenue to Discovery Street (north/south segment) |
| 36  | Funded             | CIP 88179   | Smilax Road/South Santa Fe Ave. Intersection Intersection re-alignment  | Smilax Road/South Santa Fe Avenue Intersection Intersection re-alignment   |
| 37  | Under Construction | CIP 86002   | San Marcos Blvd. at Discovery Street Intersection   | Intersection improvement 300 ft. west, and 920 ft. east, of intersection   |
| 38  | Funded             | PARK CIP  | Rancho Tesoro Park Improvements - 2 acres of 41-acre park   | City Park - Phase 2 Multi-Use Field and Parking Lot Improvements   |
| 39  | Programmed         | ST006   | South side of San Marcos Blvd., 500 ft. east of Acacia Dr.  | San Marcos Boulevard Slope Stabilization Project   |
| 40  | Proposed           | Pacific Grand Ventures                            | 1.49-acre lot east of S. Pacific at Seminole St.  | 26,156-square-foot industrial building   |
| 41  | Proposed           | Twin Oaks Valley Winery                           | 1451 Mulberry Dr.   | 3,121-square-foot 2-story winery and tasting room on a 4.23-acre lot   |
| 42  | Proposed           | Gran Vista  | Generally located at NW corner of W. Mission Rd. and N. Las Posas Rd.   | 120-unit residential condominium development on 7.6 acres.   |
| 43  | Proposed           | Paul Mayer-Santa Fe Las Floras LP                 | Northwest corner of S. Santa Fe Ave. and Las Flores Dr.   | 54-unit residential apartment building and 117 parking spaces on 2.23 acres.   |
| 44  | Proposed           | Water Mill Homes, Inc. (Manning Homes)            | SW corner of Mulberry Dr. and Cox Rd.   | 9 single-family residential lots on a 10-acre property   |
| 45  | Proposed           | San Marcos Hospitality                            | SW corner of Montiel Rd. and Leora Ln.  | Hotel with 107 rooms   |
| 46  | Proposed           | Lonnie Tavva - Arco                               | 200 Las Posas Rd.   | Gas station, convenience store, car wash   |
| 47  | Proposed           | Bennet Manning                                    | South of Woodward St. at Killarney Terrace  | 3 single-family residential lots   |
| 48  | Proposed           | SH North City LLC                                 | Discovery St. west of S. Twin Oaks Valley Rd.   | 532 attached and 94 detached condo units (626 total units), master association community rec center, public and private              |

**Table 2-6. Cumulative Projects**

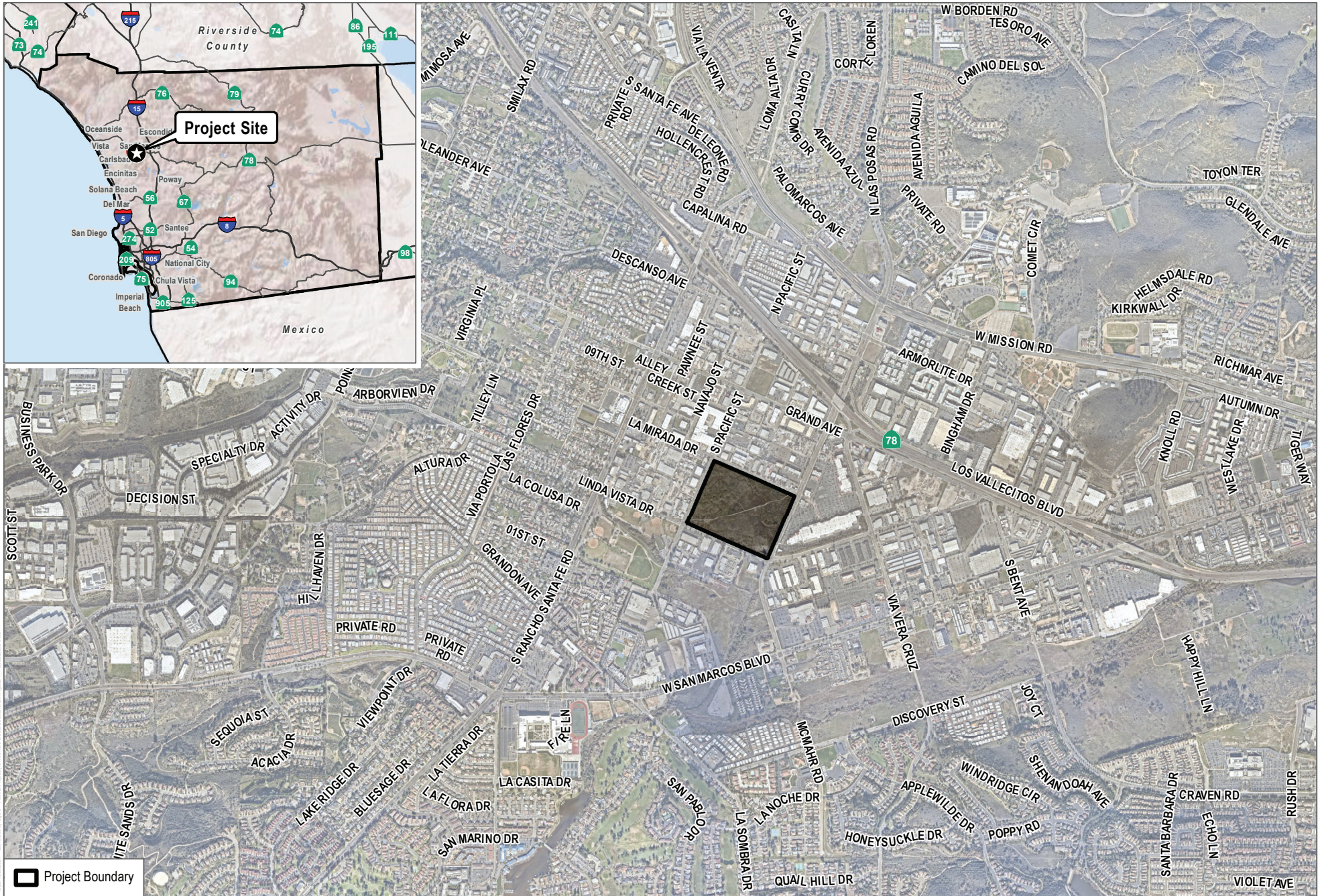
| No. | Status   | Project Name/Developer                                 | Location  | Description  |
|-----|----------|--|---|--|
|     |          |  |   | trail systems that connect to future Knoll Park  |
| 49  | Approved | University District Specific Plan Amendment – UVSM LLC | Generally located between North City Dr., Carmel St., Campus Way, and S. Twin Oaks Valley Rd. | Mixed use development with 557 residential units and associated commercial and office space  |
| 50  | Approved | Hollandia Dairy  | 620 E. Mission Rd.  | Partial demolition and reconstruction of dairy facilities; 48,755 sf   |
| 51  | Approved | American Rentals                                       | 1030 Linda Vista Dr.  | Equipment rental facility  |
| 52  | Proposed | Hunter Industries                                      | West terminus of Opal Dr.   | 67,657 sf office building  |
| 53  | Proposed | Hughes SMCC LLC  | NE corner of Pacific St., approximately 750 ft south of Linda Vista Dr.                       | 67,410 sf industrial building  |
| 54  | Proposed | Marcos Specific Plan                                   | SW corner of Grand Ave. and Linda Vista Dr.   | Horizontal mixed-use project with 102 residential units and 63,641 sf of commercial space and 8 live/work units  |
| 55  | Proposed | Prolley Apartments                                     | North side of Prolley Dr at the eastern terminus.   | 17-unit apartment building on a 0.60-acre undeveloped lot  |
| 56  | Proposed | Salim Mixed-Use Development                            | South side of San Marcos Bl, approximately 300 ft west of Via Vera Cruz                       | Mixed-use development on a 4.8-acre lot consisting of 10,067 sf commercial, 250 dwelling units and 8 live/work units                                   |
| 57  | Proposed | Lennar Homes of California LLC                         | 1020-1080 W. San Marcos Blvd  | Redevelopment project removing existing building and constructing a mixed-use project of 10,500 sf commercial, 202 condominium units and a public park |
| 58  | Approved | San Elijo Town Center East                             | NE corner of San Elijo Road and Elfin Forrest Road at 1093 San Elijo Road.                    | Construction of a two-story multi-tenant commercial building   |

**Notes:**

CUP = Conditional Use Permit  
du = dwelling unit  
GPA = General Plan Amendment  
MFR = multifamily residence  
MUP = Major Use Permit  
REZ = Rezone  
S = Site Plan

SCH = State Clearinghouse  
sf = square feet  
SP = Specific Plan  
SPA = Specific Plan Amendment  
SFR = single-family residence  
TM = Tentative Map  
TPM = Tentative Parcel Map  
VTM = Vesting Tentative Map

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SOURCE: SANGIS 2020

**DUDEK**



**FIGURE 2-1**  
**Project Location**  
 Pacific Project EIR

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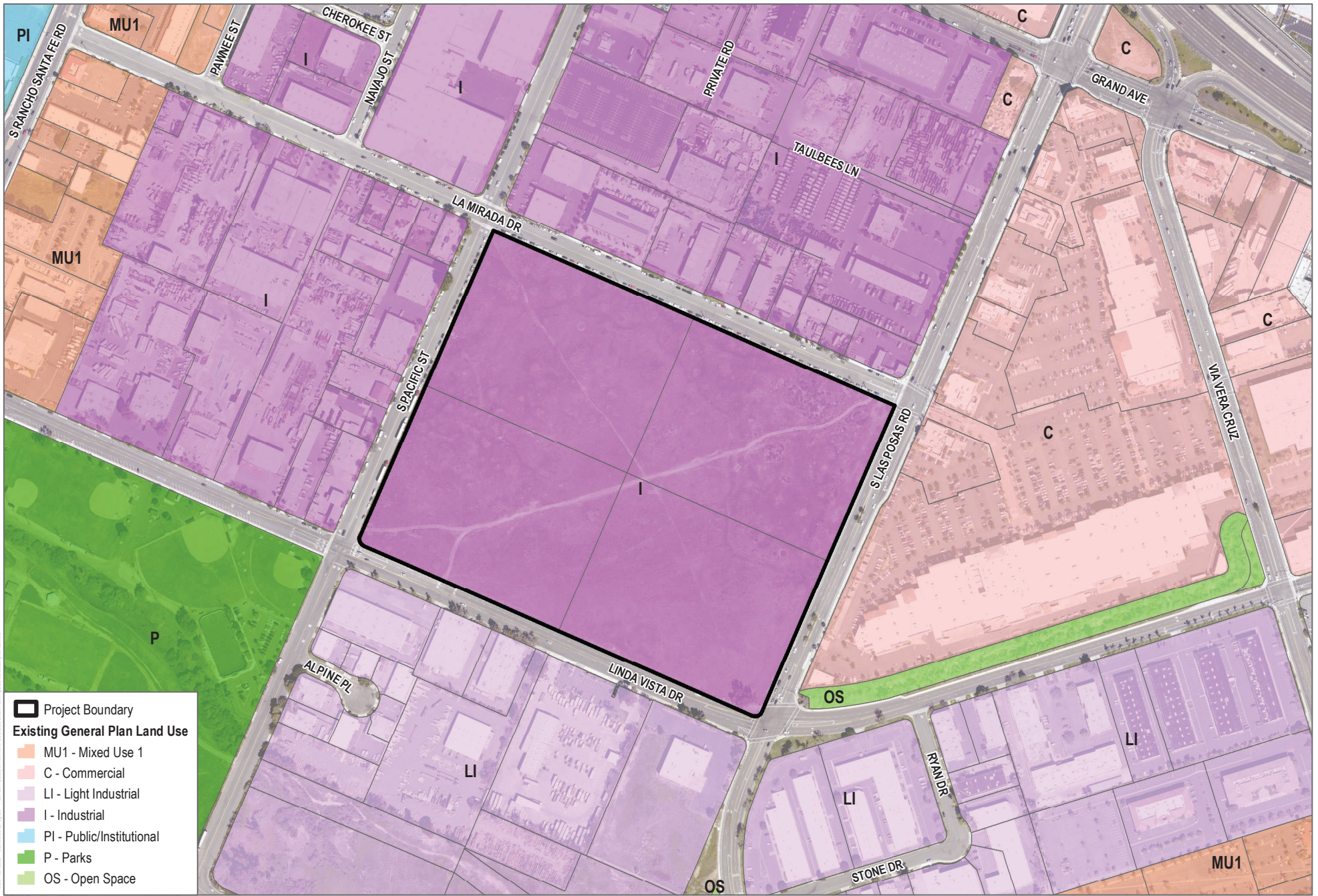




SOURCE: SANGIS 2020

**FIGURE 2-2**  
**Project Site and Surroundings**  
 Pacific Project EIR

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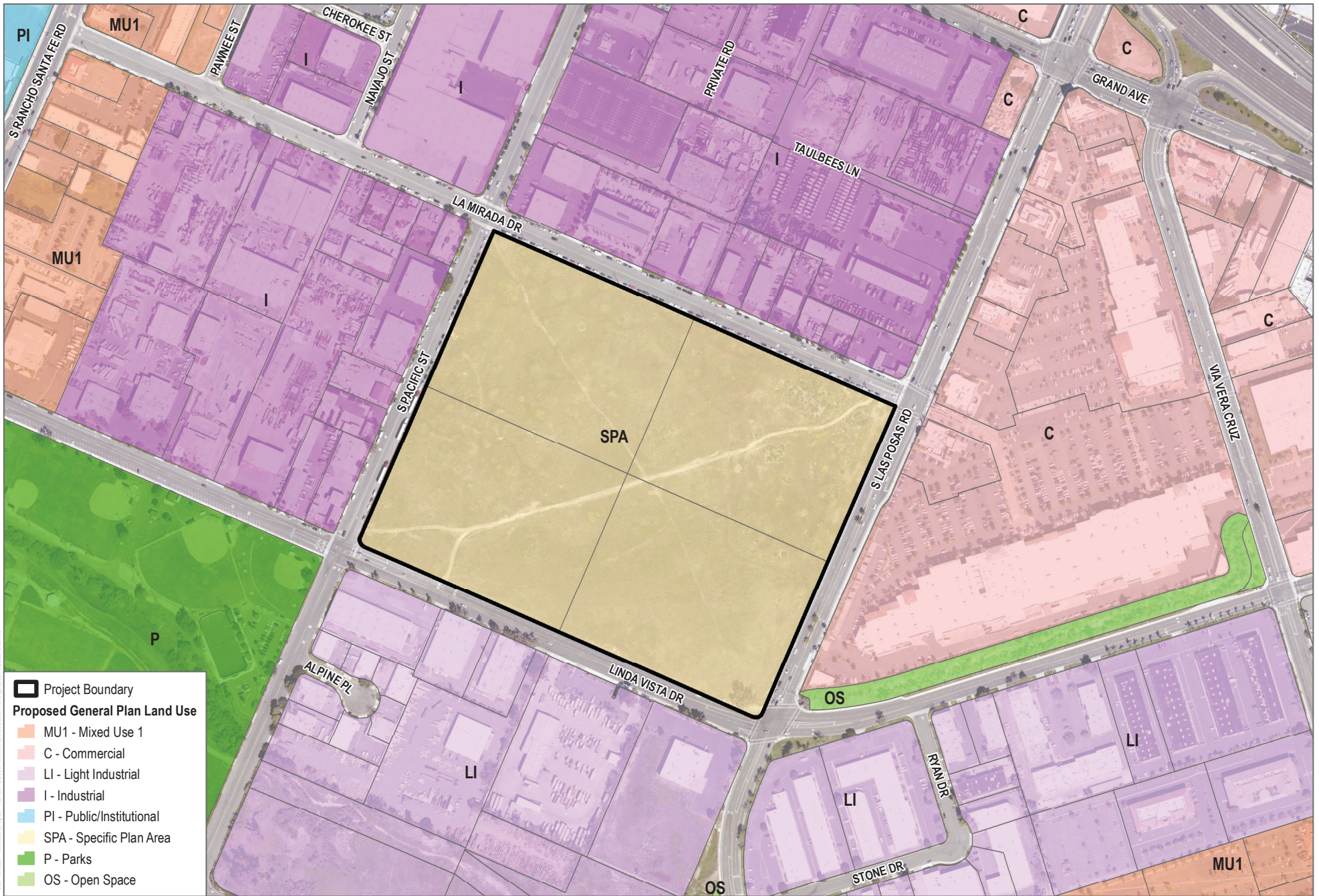
- Project Boundary
- Existing General Plan Land Use**
- MU1 - Mixed Use 1
- C - Commercial
- LI - Light Industrial
- I - Industrial
- PI - Public/Institutional
- P - Parks
- OS - Open Space

SOURCE: City San Marcos 2021; SANGIS 2021



**FIGURE 2-3a**  
**General Plan Land Use**  
 Pacific Project EIR

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**Project Boundary**

**Proposed General Plan Land Use**

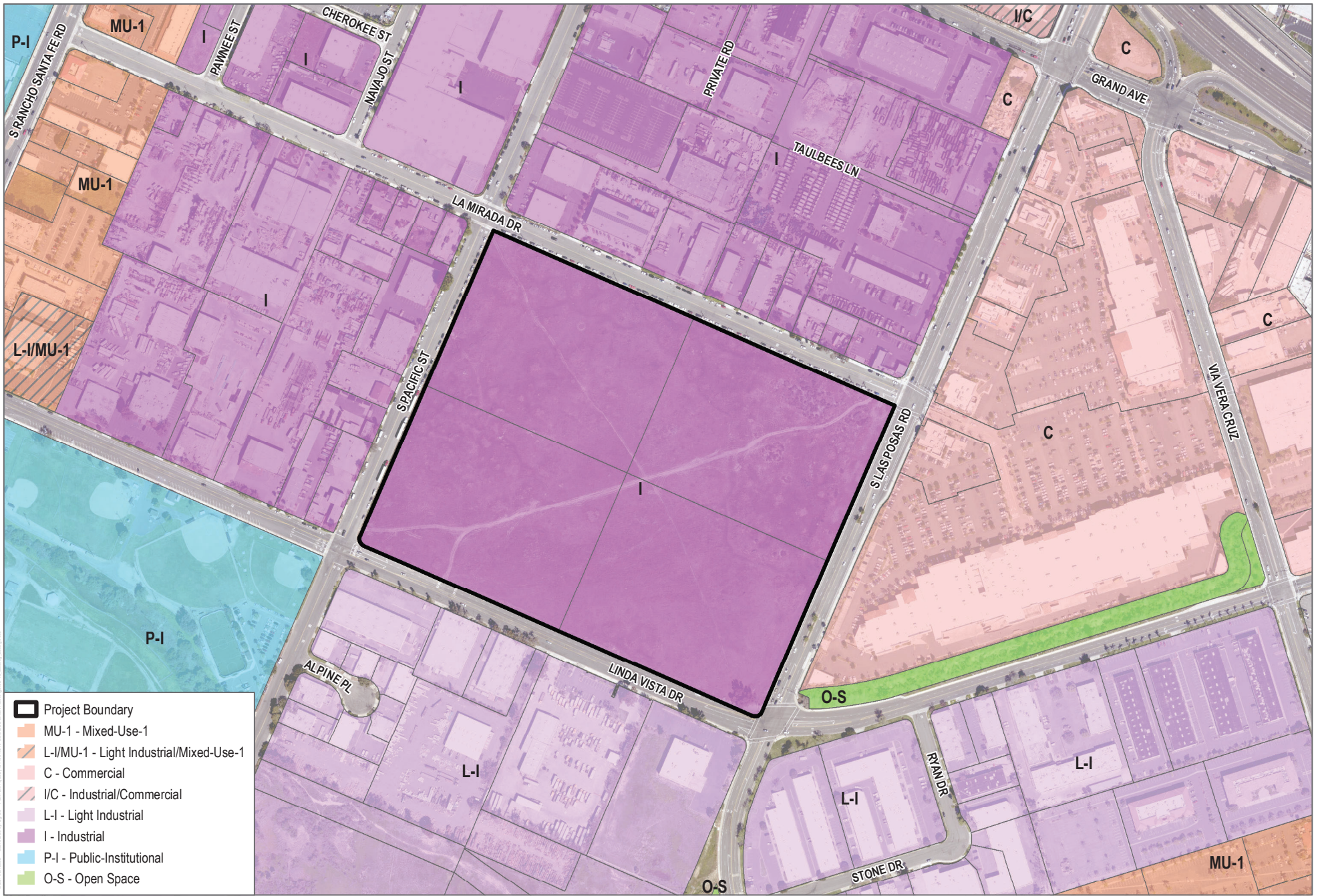
- MU1 - Mixed Use 1
- C - Commercial
- LI - Light Industrial
- I - Industrial
- PI - Public/Institutional
- SPA - Specific Plan Area
- P - Parks
- OS - Open Space

SOURCE: City San Marcos 2021; SANGIS 2020, 2021



**FIGURE 2-3b**  
**Proposed General Plan Land Use**  
 Pacific Project EIR

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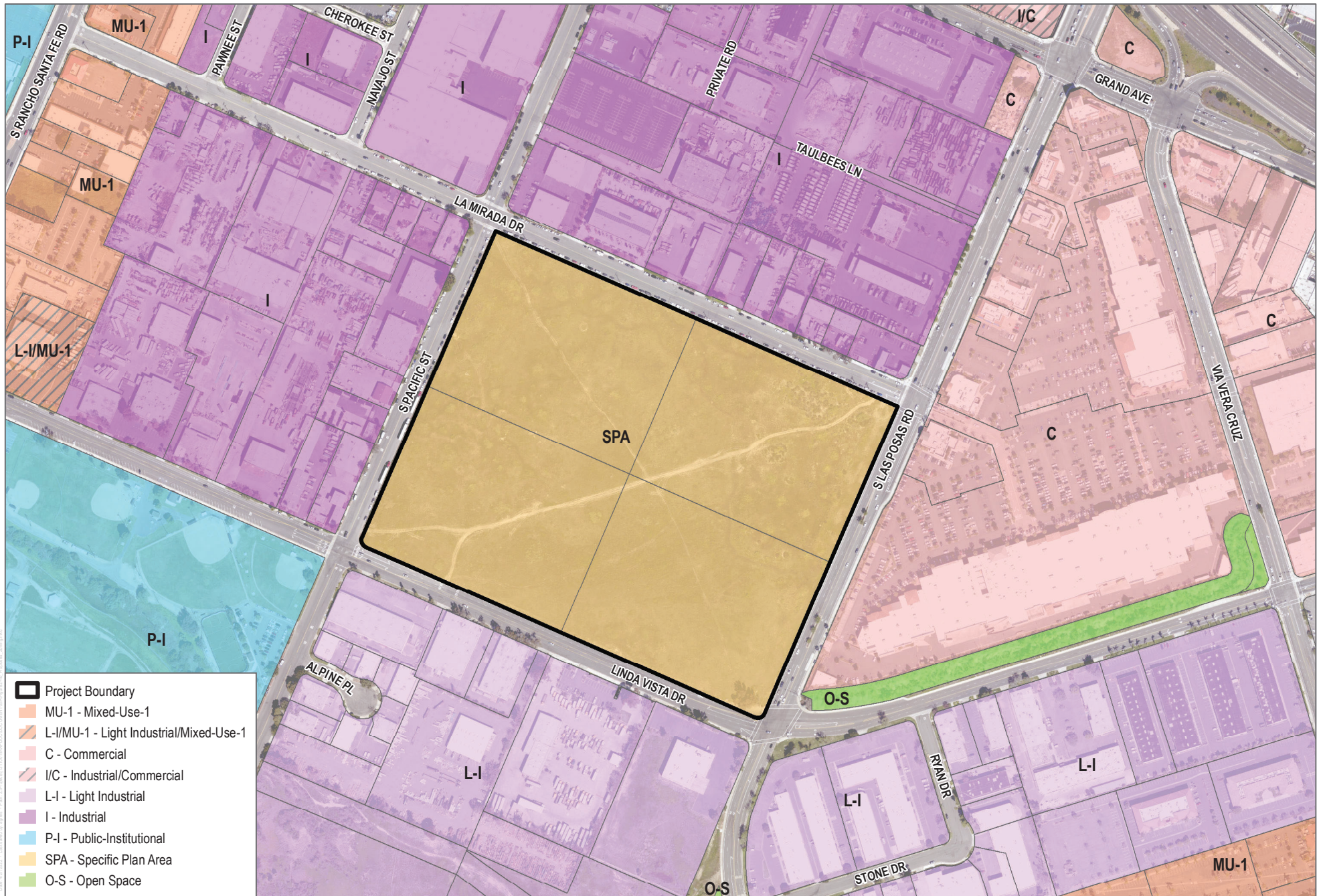


SOURCE: City San Marcos 2021; SANGIS 2021

**FIGURE 2-4a**  
Existing Zoning  
Pacific Project EIR

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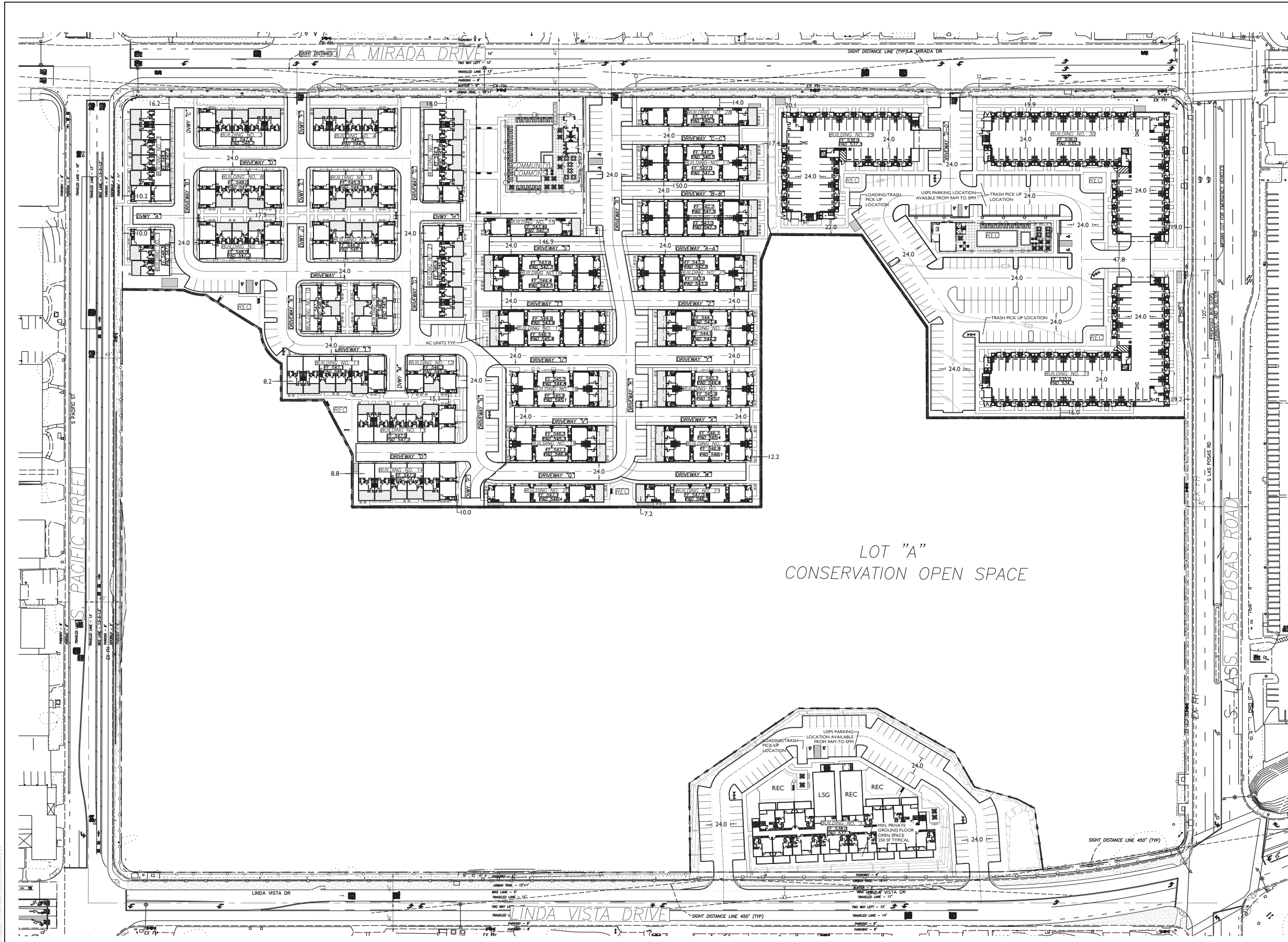




SOURCE: City San Marcos 2020; SANGIS 2020

**FIGURE 2-4b**  
**Proposed Zoning**  
 Pacific Project EIR

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RESIDENCES 449 HOMES  
 GROSS SITE AREA 33.229 ACRES (15.091 ACRES NET)  
 GROSS DENSITY 13.51 DU/AC (29.75 DU/AC NET)

**ROWHOMES - LOT 1**

|     |            |             |
|-----|------------|-------------|
| 23  | 2BD/2BA    | 1,200 SF    |
| 23  | 3BD/3BA    | 1,310 SF    |
| 28  | 3BD/3.5BA  | 1,736 SF    |
| 27  | 4BD/3.5BA  | 1,890 SF    |
| 101 | 4.419 AC = | 22.86 DU/AC |

**PARKING SUMMARY PER CA 65915**

|  |            |   |
|--|------------|---|
| 2&3 BD   | 74 X 1.5 = | 111 SPACES                                |
| 4 BD   | 27 X 2.5 = | 68 SPACES                                 |
| TOTAL REQUIRED   |            | 179 SPACES                                |
| TOTAL PROVIDED   |            | 234 SPACES* (32 OPEN/202 PRIVATE GARAGES) |
| *NOTE: RECIPROCAL ACCESS & PARKING AGREEMENT BETWEEN LOT 1 & 2 (LOT 1 EV = 234 SP X 5% = 12 EV LEVEL 2 CHARGERS INSTALLED) |            |   |

|                                 |           |           |
|---------------------------------|-----------|-----------|
| PRIVATE OPEN SPACE              | REQUIRED  | PROVIDED  |
| 101 X 50 SF                     | 5,050 SF  | 6,959 SF  |
| COMMON OPEN SPACE               | REQUIRED  | PROVIDED  |
| GROUND FLOOR SF X 30% 12,945 SF |           |           |
| TOT LOT (1:25 DU) 4X400 SF      | 1,600 SF  |           |
| PLAYGROUND                      | 800 SF    |           |
| TOTAL                           | 15,345 SF | 40,876 SF |

**VILLAS - LOT 2**

|     |            |             |
|-----|------------|-------------|
| 60  | 2BD/2BA    | 1,272 SF    |
| 24  | 3BD/2.5BA  | 1,486 SF    |
| 24  | 3BD/3BA    | 1,832 SF    |
| 108 | 4.583 AC = | 23.57 DU/AC |

**PARKING SUMMARY PER CA 65915**

|  |             |   |
|--|-------------|---|
| 2&3 BD   | 108 X 1.5 = | 162 SPACES                                |
| TOTAL REQUIRED   |             | 162 SPACES                                |
| TOTAL PROVIDED   |             | 254 SPACES* (38 OPEN/216 PRIVATE GARAGES) |
| *NOTE: RECIPROCAL ACCESS & PARKING AGREEMENT BETWEEN LOT 1 & 2 (LOT 2 EV = 254 SP X 5% = 13 EV LEVEL 2 CHARGERS INSTALLED) |             |   |

|                                 |           |           |
|---------------------------------|-----------|-----------|
| PRIVATE OPEN SPACE              | REQUIRED  | PROVIDED  |
| 108 X 50 SF                     | 5,400 SF  | 6,180 SF  |
| COMMON OPEN SPACE               | REQUIRED  | PROVIDED  |
| GROUND FLOOR SF X 30% 16,204 SF |           |           |
| TOT LOT (1:25 DU) 5X400 SF      | 2,000 SF  |           |
| PLAYGROUND                      | 800 SF    |           |
| TOTAL                           | 19,004 SF | 29,899 SF |

**APARTMENTS - LOT 3**

|     |            |             |
|-----|------------|-------------|
| 86  | 1B/1BA     | 740 SF      |
| 62  | 2BD/2.5BA  | 1,256 SF    |
| 24  | 3BD/2.5BA  | 1,579 SF    |
| 172 | 4.308 AC = | 39.93 DU/AC |

**PARKING SUMMARY PER CA 65915**

|   |            |                   |
|---|------------|-------------------|
| 1BD   | 86 X 1.0 = | 86 SPACES         |
| 2&3BD   | 86 X 1.5 = | 129 SPACES        |
| TOTAL REQUIRED  |            | 215 SPACES        |
| PROVIDED COVERED (1:1)                                      |            | 172 GARAGE SPACES |
| PROVIDED OPEN   |            | 187 SPACES        |
| TOTAL PROVIDED  |            | 359 SPACES        |
| (LOT 3 EV = 359 SP X 5% = 18 EV LEVEL 2 CHARGERS INSTALLED) |            |                   |

|                                 |           |           |
|---------------------------------|-----------|-----------|
| PRIVATE OPEN SPACE              | REQUIRED  | PROVIDED  |
| 172 X 50 SF                     | 8,600 SF  | 11,180 SF |
| COMMON OPEN SPACE               | REQUIRED  | PROVIDED  |
| GROUND FLOOR SF X 30% 15,606 SF |           |           |
| TOT LOT (1:25 DU) 6X400 SF      | 2,400 SF  |           |
| PLAYGROUND                      | 800 SF    |           |
| TOTAL                           | 18,806 SF | 47,870 SF |

**AFFORDABLE - LOT 4**

|    |            |             |
|----|------------|-------------|
| 8  | STUDIO/1BA | 512 SF      |
| 42 | 1BD/1BA    | 625 SF      |
| 18 | 2BD/2BA    | 924 SF      |
| 68 | 1.781 AC = | 38.18 DU/AC |

**PARKING PROVIDED PER CA 65915**

|   |           |
|---|-----------|
| 50 X 1.0 SP/DU =  | 50 SPACES |
| 18 X 1.5 SP/DU =  | 27 SPACES |
| TOTAL REQUIRED  | 77 SPACES |
| TOTAL PROVIDED  | 80 SPACES |
| (LOT 4 EV = 80 SP X 5% = 4 EV LEVEL 2 CHARGERS INSTALLED) |           |

|                                |          |           |
|--------------------------------|----------|-----------|
| PRIVATE OPEN SPACE             | REQUIRED | PROVIDED  |
| 68 X 50 SF                     | 3,400 SF | 3,111 SF  |
| COMMON OPEN SPACE              | REQUIRED | PROVIDED  |
| GROUND FLOOR SF X 30% 2,828 SF |          |           |
| TOT LOT (1:25 DU) 3X400 SF     | 1,200 SF |           |
| TOTAL                          | 4,028 SF | 16,340 SF |

TOTAL EV = 927 SP X 5% = 47 EV LEVEL 2 CHARGERS INSTALLED  
 (PROJECT SHALL MEET THE MINIMUM CGBSC STANDARDS FOR EV CHARGING FOR NEW CONSTRUCTION AT TIME OF PERMIT APPLICATION)

LOT "A"  
 CONSERVATION OPEN SPACE

SOURCE: Summa Architecture, 2023

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BLDG B



BLDG B



BLDG A



BLDG A

SOURCE: Summa Architecture, 2022

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BUILDING D



BUILDING C



BUILDING B



BUILDING A

SOURCE: Summa Architecture, 2022

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SOURCE: Summa Architecture, 2022

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NORTH



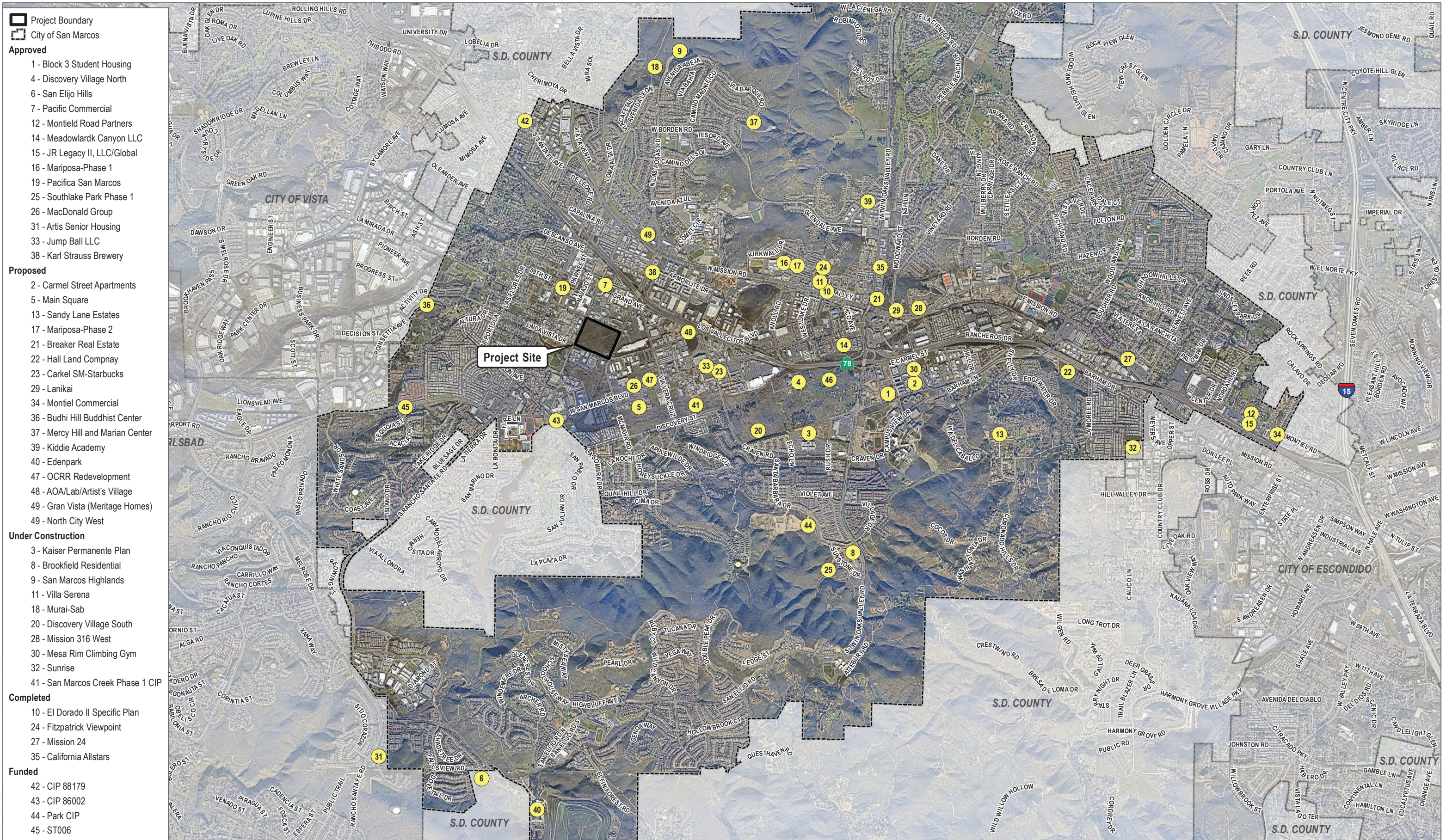
EAST



SOUTHWEST (LINDA VISTA DRIVE)

SOURCE: Summa Architecture, 2022

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SOURCE: SANGIS 2020

**FIGURE 2-7**  
**Cumulative Project Map**  
 Pacific Project EIR

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# 3 Environmental Analysis

## 3.1 Aesthetics

This section describes the existing visual setting of the proposed Pacific Specific Plan Project (proposed project) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

Table 3.1-1 summarizes the project and cumulative level aesthetics impacts, by threshold.

**Table 3.1-1. Aesthetics Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 1 – Have a substantial adverse impact on a scenic vista.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2 – Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.  | No Impact             | No Impact               | No Impact                  |
| No. 3 – In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4 – Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.   | Less than Significant | Less than Significant   | Less than Significant      |

### 3.1.1 Existing Conditions

#### Existing Visual Resources and Environment

##### Scenic Highways

According to the California Department of Transportation California Scenic Highway Mapping System, the project site is not located adjacent to, or in the vicinity of, a designated state scenic highway (Caltrans 2021). The nearest officially designated state scenic highway is State Route (SR) 78. SR 78 is a designated state scenic highway from the west boundary of the Anza-Borrego Desert State Park to the east boundary of the State Park. SR 78 is located approximately 0.44 miles east of the project site, however the portion designated as a state scenic highway begins approximately 41 miles east of the project site. The project site is located approximately 26 miles west of the closest portion of SR 78 identified as an eligible state scenic highway. The nearest eligible state scenic highway is Interstate (I) 5. I-5 is located approximately 7.3 miles west of the project site.

At a local level, the City has designated SR 78 as a view corridor for its unobstructed visual passageway. The highway corridor provides views of the Merriam Mountains, Mt. Whitney, Double Peak, California State University San Marcos, and Palomar Community College. Views of the project site from SR 78 are generally obscured for motorists due to existing commercial and residential developments and tall vegetation south of the highway, and due to the speed of motorists on SR 78 (please refer to Figure 3.1-1, Existing Views from State Route 78).

#### Scenic Vista

A scenic vista is typically defined as a panoramic view or vista from an identified view/vista point, public road, public trails, public recreational areas, or scenic highways. Potential scenic views from private properties are not under consideration in this analysis, as it is not required by the City. The City's General Plan does not identify any designated scenic vistas; however, the General Plan more generally aims to protect the City's scenic resources such as the San Marcos, Merriam, and Double Peak Mountains, creek corridors, mature trees, rock outcroppings, and ocean views (City of San Marcos 2012). The project site is surrounded by urban development areas. Potential vantage points in the City include Mt. Whitney and Franks Peak, located approximately 3 miles southwest of the project site. There is a potential for the project site to be visible from the Mt. Whitney peak; however, this peak is accessible only by a private road and peak access is prohibited to the public. The Franks Peak summit is accessible by various public recreational trails, which could serve as potential vantage points of the project site. Views of the project site from Franks Peak and associated trails would be partially obstructed by Mt. Whitney. Double Peak is also a prominent landform with long and broad views located approximately 3 miles southwest of the project site; however, views of the project site from Double Peak are entirely obstructed by various ridgelines.

#### Visual Characteristics

The following is a description of the existing visual characteristics and quality of the project site and surroundings.

##### Project Site

The approximately 33-acre project site is an undeveloped lot located in the western portion of the City at the northwest corner of South Las Posas Road and Linda Vista Drive. La Mirada Road abuts the site's northern boundary, while Pacific Street abuts the property's western boundary. The Grand Plaza shopping center is located directly across Las Posas Drive. Light industrial uses are adjacent to the site's northern, southern, and western boundary, and Bradley park is located across from the site's southwestern corner. Single- and multifamily residential uses are located to the west and south of Bradley park. The project location and project site boundary are shown on Figures 2-1 and 2-2 in Chapter 2, Project Description, of this Environmental Impact Report (EIR). The project site is immediately visible from adjacent streets and surrounding land uses.

The undeveloped project site is dominated by invasive shrubs and grass. Although undeveloped, the project site reflects a history of disturbance. Vegetation is disturbed by an abundance of invasive and weedy plant species, and unpaved roads crossing the project site are visible on historic aerials since 1980 (Appendix C, Biological Technical Report). The project site is relatively flat, ranging in elevation from approximately 527 feet above mean sea level in the southeast portion of the project area to 551 feet above mean sea level in the northwest corner of the project site. As described in the Biological Technical Report (Appendix C), seven vegetation communities or habitat types occur within the project site: vernal pools, Diegan coastal sage scrub (including disturbed and baccharis-dominated), native grassland, non-native grassland, disturbed habitat, and urban/developed.



### Surrounding Area

The project site is immediately bordered by Las Posas Road to the east, Linda Vista Drive to the south, La Mirada Road along the northern boundary and Pacific Street abuts the property's western boundary. The project site is surrounded by industrial uses to the north, south, and west, and commercial uses to the east, specifically the Grand Plaza shopping center is located directly across Las Posas Drive. The 24-acre Bradley park is located across from the sites' southwestern corner. Residential uses are located to the south and west of Bradley park. The project site is located in an urban setting and is considered an infill site. Surrounding land uses outside of the immediately adjacent industrial and commercial land uses include designated parks, single and multifamily residential, and schools/educational facilities. The closest freeway is SR 78 located approximately 0.44 miles east of the project site.

The existing Industrial developments to the north, northwest, and west of the project site, and the existing Light Industrial developments to the south and southwest of the project site, are characterized by one to two story buildings with white or tan smooth exteriors.

The existing Commercial development to the east is a local mall that is comprised of various retail department stores and restaurants. These buildings are one to two story buildings with tan or white exteriors and with grey brick accents. The existing park to the southwest of the project site is Bradley park, which is located at 1587 Linda Vista Drive and contains an arena soccer field, a ballfield, BBQs, a horseshoe court, a multi-purpose field, picnic shelters, picnic tables, and play equipment.

### Existing Light and Glare Conditions

The project site is currently undeveloped and thus does not contain any existing sources of light or glare. Additionally, the project site does not contain any reflective surfaces that would act as sources for glare. Commercial and industrial developments surrounding the project site contain sources of lighting typical of these land uses. Sources of nighttime lighting in this area could occur from exterior building lighting, street lighting, lighting in parking lots, and vehicles traveling along the adjacent roadways. No sources of substantial glare are present in this area.

## 3.1.2 Regulatory Setting

### State

#### California Public Resources Code, Section 20199

California Public Resources Code (PRC) Section 20199 (d)(1) stipulates that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." The proposed project would qualify as a residential project on an infill site within a transit priority area. This is further addressed in Section 3.1.4, Project Impact Analysis.

#### California Scenic Highway Program

The California State Legislature created the California Scenic Highway Program in 1963 with the intent "to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment." The state laws that govern the Scenic Highway Program are Sections 260 through 263 of the Streets and Highways Code. A highway may be designated scenic based on the natural landscape visible by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the views of the highway. The Scenic

Highway Program includes both officially designated scenic highways and highways that are eligible for designation. A highway may be designated as scenic based on aesthetic quality of viewable landscape, extent of views upon the natural landscape, and the degree to which development impedes these views. It is the responsibility of local jurisdictions to apply for scenic highway approval, which requires the adoption of a Corridor Protection Program (Caltrans 2022). There are no state-designated scenic highways in the vicinity of the project site.

## Local

### City of San Marcos General Plan

The City's Conservation and Open Space Element identifies one goal and associated policies to protect natural resources that have scenic value. Landforms such as the mountain ranges in the northern and southern portions of the City contribute to its scenic corridors. The following goal and policies from the City of San Marcos General Plan Conservation and Open Space Element pertain to aesthetics and visual quality (City of San Marcos 2012):

Goal COS-3 Protect natural topography to preserve and enhance the natural beauty of San Marcos.

Policy COS-3.1: Preserve scenic resources, including prominent landforms such as Double Peak, Owens Peak, San Marcos Mountains, Merriam Mountains, Cerro de Las Posas, Franks Peak, and canyon areas through conservation and management policies.

Policy COS-3.2: Encourage and maintain high-quality architectural and landscaping designs that enhance or complement the hillsides, ridgelines, canyons, and view corridors that comprise the visual character in San Marcos.

Policy COS-3.3: Continue to work with new development and redevelopment project applicants in designing land use plans that respect the topography, landforms, view corridors, wildlife corridors, and open space that exists.

Policy COS-3.4: Evaluate potential impacts to visual and aesthetic resources, including the potential to create new light sources, while still maintaining and being sensitive to rural lighting standards.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10.4, Project Impact Analysis, the project is consistent with the applicable goals and policies pertaining to aesthetics.

### San Marcos Municipal Code Zoning Ordinance, Title 20

The provisions of Title 20 of the San Marcos Municipal Code are referred to as the Zoning Ordinance. The San Marcos Municipal Code Zoning Ordinance Title 20 is the primary implementation tool for the policies of the General Plan. The Zoning Ordinance provides more detailed direction related to design and development standards; permitted, conditionally permitted, and prohibited uses; and other regulations such as lighting and sign regulations. The land uses specified in the Zoning Ordinance are based upon and consistent with the land use policies set forth in the General Plan. Specifically, building design, setbacks, lighting, and signage standards as well as open space requirements for development to protect open space and ambient light levels in the City. Lighting standards of the Ordinance require energy-efficient lighting that limits light and glare for private projects, with exceptions for specialized streetscape lighting. Private developments are required to submit lighting plans to ensure consistency with dark sky needs of the region (City of San Marcos Municipal Code Zoning Ordinance, Title 20).

#### Title 20, Section 20.300.080, Site Planning and General Development Standards

The City of San Marcos Street Lighting Standards and Specifications describes the lighting and glare standards for the City. These standards require lighting to be directed downward and limit the type and spacing of lighting to maintain reasonable lighting levels that do not contribute to light pollution. The City uses International Dark Sky Association thresholds to inform its own testing, leading to a policy that allows for the use of energy-efficient lighting sources that include, but are not limited to, LED and induction lighting technologies (City of San Marcos 2022).

#### Title 20, Chapter 20.260, Ridgeline Protection and Management Overlay Zone

The City of San Marcos adopted a Ridgeline Protection and Management Overlay Zone in November 2008, set forth in Ordinance 2008-1314, to minimize visual impacts to important ridgelines. These guiding principles are in place to protect natural viewsheds, minimize physical impacts to ridgelines, and establish innovative site and architectural design standards. The Ordinance identifies primary and secondary ridgelines within the City, plus buffer zones, or Ridgeline Overlay Zones, surrounding these ridgelines (City of San Marcos 2022). No primary or secondary ridgelines are located within or adjacent to the project site; the nearest ridgeline is a secondary ridgeline located approximately 1.25 miles west of the project site. The nearest primary ridgeline is located approximately 1.75 miles southwest of the project site.

### 3.1.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to aesthetics would occur if the project would:

Threshold No. 1: Have a substantial adverse effect on a scenic vista.

Threshold No. 2: Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.

Threshold No. 3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Threshold No. 4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

### 3.1.4 Project Impact Analysis

As described in Chapter 2 of this EIR, the proposed project consists of development of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.09 acres within the approximately 33.2-acre project site. Proposed residential units would include a mix of apartments within a five-story podium building, three-story rowhomes, three-story villas, and affordable flats within a four-story building. The project would also include a total of 927 parking spaces and a 134,985-square-foot common open space area. The project would incorporate landscaping, bio-retention areas, and circulation improvements. The remaining 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area.

The proposed project would have a density of approximately 29.8 dwelling units per acre, not including the proposed open space and habitat area. With the open space and habitat area included, the density of the proposed project would be approximately 13.5 dwelling units per acre.

The proposed project site is considered an infill site within an urbanized area under CEQA but is not located within a transit priority area such that aesthetic impacts are conclusively not significant under PRC Section 20199 (d)(1). As described in Section 3.1.2, Regulatory Setting, PRC Section 20199 (d)(1) states that “aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.” According to Section 21099(d)(1), an “infill site” is defined as “a lot located within an urban area that has been previously developed, or on a vacant site where at least 75% of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.” The project site is located on a vacant lot and more than 75% of the project boundary is adjacent to “qualified urban uses” (i.e., residential and commercial) per PRC Section 21072, such that the site is an “infill site.”

PRC Section 21071 defines an “urbanized area” as “(a) an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.” As of 2020, the City of San Marcos has an estimated population of 97,209 (see Section 3.12, Population and Housing). While this is less than 100,000 persons, the City of San Marcos is contiguous with the City of Escondido, which has an estimated population of 151,625 persons as of 2019 (U.S. Census Bureau 2019). The combined estimated population of these two contiguous cities is 248,834 persons, which is well over the 100,000 persons threshold. Thus, the City of San Marcos would be considered an urbanized area per CEQA.

A “transit priority area” is defined as “an area within one-half mile of a major transit stop that is existing or planned.” The project site is located approximately 0.6 miles from the North County Transit District (NCTD) Palomar College Station, and therefore just outside of the transit priority area. Accordingly, while the proposed project is a residential project on an infill site in an urbanized area in close proximity to transit, further analysis is needed to evaluate the significance of aesthetic impacts.

***Threshold No. 1: Would the project have a substantial adverse effect on a scenic vista?***

The City’s General Plan does not identify any designated scenic vistas; however, the General Plan more generally aims to protect the City’s scenic resources such as the San Marcos, Merriam, and Double Peak Mountains, creek corridors, mature trees, rock outcroppings, and ocean views. The project site and surrounding valley terrain are encompassed by mountains to the west and south that provide opportunities for elevated vantage points offering long and broad views, which may include views of the project site. However, due to the relatively flat terrain of the project site and surrounding area, and the project site’s location on an infill site in an urbanized area, development of the proposed project is not expected to impede views of existing scenic vistas, nor is the project site considered a scenic vista. Therefore, impacts related to aesthetic impacts are considered less than significant.

***Threshold No. 2: Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?***

SR 78 is located 0.44 miles east of the project site. However, as previously discussed, the section of SR 78 proximate to the project site is not identified as a Scenic Highway per the California Department of Transportation State Scenic Highways Program, although the City has designated SR 78 as a view corridor to surrounding

ridgelines. Additionally, a portion of SR 78 is also identified as an Eligible State Scenic Highway; however, this eligible segment begins 26 miles east of the project site in Santa Ysabel. The nearest eligible state scenic highway is I-5. I-5 is located approximately 7.3 miles west of the project site and is not visible due to distance. Therefore, the project site is not located within a viewshed of a state scenic highway.

As described above, views of the project site from SR 78 are generally limited due to existing commercial and residential developments, existing vegetation, and the speed of motorists on SR 78. Even with development of the proposed project, views of the surrounding hillsides and ridgelines would not be substantially obstructed from SR 78 (please refer to Figure 3.1-2, Proposed Views from State Route 78). The project site is not located within a ridgeline or view corridor and is surrounded on all sides by existing development.

Further, the project site is currently undeveloped and does not support any historic buildings. There are also no rock outcroppings or trees on site. Therefore, implementation of the proposed project would not substantially damage scenic resources within a state scenic highway, and no impact would occur.

***Threshold No. 3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

As previously discussed, the City of San Marcos (which includes the project site) is considered an urbanized area pursuant to PRC Section 21071. Therefore, the first question of Threshold No. 3 does not apply to the proposed project, as it is directed at non-urbanized areas.

The visual character of the site would be altered by the proposed project, as it would change the existing vacant and undeveloped site to residential development. While the proposed project would change the existing visual character on the site, it is not characterized as substantial degradation since few public vantage points of the project site exist and the site is entirely surrounded by adjacent development in a highly urbanized area. Although the proposed residential uses would differ in land use designation and visual character in comparison to the immediately surrounding industrial land uses, the proposed residential development would conform to the existing urbanized character of the surrounding area and would not substantially change the views from any public viewpoint. With City approval of the proposed land use and zoning change from Industrial to Specific Plan Area, the proposed project would be required to comply with design standards of the approved Specific Plan for the project site. Renderings of the proposed villas, rowhomes, apartments, and affordable units are shown in Figures 2-6a through 2-6d in Chapter 2 of this EIR. Additionally, a landscape plan would be implemented to soften the visual impact of the proposed residential development from adjacent roadways and land uses.

The Conservation and Open Space Element of the City's General Plan recognizes the habitat and scenic value of natural and cultural open spaces within the City and lists goals and policies that ensure long-term stewardship of these resources. As outlined in Section 3.10, Land Use and Planning, of this EIR, the project would not conflict with the goals of the Conservation and Open Space Element, nor any other City goals or policies, or zoning ordinance related to scenic quality, including the City's Ridgeline Protection and Management Overlay Zone. As the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings, impacts are considered to be less than significant.

**Threshold No. 4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

### Lighting

Lighting in the project vicinity is associated with roadway lighting and lighting associated with the existing commercial and industrial uses that surround the project site. Development of the proposed project would result in new sources of light from the residential units, landscaping lighting, security lighting, and internal circulation and pedestrian lighting. These proposed land uses would introduce lighting to a site that is currently undeveloped and has no existing source of lighting.

All lighting associated with the project would be required to comply with the City's Municipal Code Section 20.300.080, Light and Glare Standards. Although the proposed project would result in new sources of light in the area, the project site is in an urbanized area and is surrounded by existing development with existing sources of day and nighttime lighting. Compliance with the City's Municipal Code would minimize and restrict nighttime light pollution and light trespass on adjacent properties. Therefore, new sources of day or nighttime lighting associated with the project would not be considered substantial, and impacts related to lighting would be considered *less than significant*.

### Glare

Implementation of the proposed project could potentially include sources of glare from architectural finishes or amenities on-site. The project developer would be required by the City's Municipal Code Section 20.300.080, Light and Glare Standards, to minimize use of reflective building materials and finishes, as well as reflective lighting structures and metallic surfaces to the extent feasible to impede any potential-generated glare. As shown in the project renderings (Figures 2-6a through 2-6d in Chapter 2 of this EIR), the proposed development would incorporate materials and finishes that would minimize the potential for glare, including set back windows, window awnings, and neutral colors for building facades. The proposed project would not propose any features that would be characterized as creating a substantial new source of glare that would adversely affect daytime or nighttime views in the area. Project impacts related to aesthetic impacts are considered *less than significant*.

## 3.1.5 Mitigation Measures

No significant impacts to aesthetics were identified. Therefore, no mitigation measures are required.

## 3.1.6 Conclusion

In summary, the project would not be built upon any primary or secondary ridgelines, nor would the project substantially affect a scenic vista. The project site is not located in close proximity to a designated State Scenic Highway per the California Department of Transportation State Scenic Highway Program. Although the City has designated SR 78 as a view corridor to surrounding ridgelines, the project would not significantly change views from SR 78, and the project would not impede views to any primary or secondary ridgelines from SR 78.

The project site is located in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality, including the scenic resource protection policies in the Conservation and Open Space Element of the City's General Plan (refer to Section 3.10). Implementation of the proposed project would reasonably result in changes to the visual character of the site by allowing residential development; however, the potential for a significant visual impact to occur would be reduced due to a general lack of public vantage points and visual

conformance with adjacent development. Landscaping associated with the project would also reduce views of the project from adjacent uses by blending the buildings into the visual setting and/or providing visual screening.

Concerning lighting and glare, the proposed project would not include highly reflective finishes or excessive lighting. Further, any exterior nighttime lighting associated with the project would be required to comply with the City's Street Lighting Standards and Specifications and Municipal Code.

It has been determined that implementation of the proposed project would not result in any potential impacts related to aesthetics, and impacts would be less than significant with no mitigation required.

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Eastbound



Westbound



SOURCE: Summa Architecture, 2022

**FIGURE 3.1-1**  
Existing Views from State Route 78  
Pacific Project EIR

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Eastbound



Westbound



SOURCE: Summa Architecture, 2022

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## 3.2 Air Quality

This section evaluates the potential impacts on air quality of the proposed Pacific Specific Plan Project (proposed project) and their contribution to regional air quality conditions, identifies associated regulatory requirements, and recommends mitigation measures to reduce impacts to a level below significant. This section is based on the Air Quality and Greenhouse Gas Emissions Technical Report for the Pacific Project (Air Quality and Greenhouse Gas Emissions Technical Report) prepared by Dudek in February 2023. The complete Air Quality and Greenhouse Gas Emissions Technical Report is included as Appendix B of this environmental impact report (EIR).

Table 3.2-1 summarizes the project- and cumulative-level air quality impacts under each applicable threshold of significance.

**Table 3.2-1. Air Quality Summary of Impacts**

| Threshold of Significance   | Project Direct Impact                 | Project Cumulative Impact             | Significance Determination            |
|---|---------------------------------------|---------------------------------------|---------------------------------------|
| No. 1 - Conflict with or obstruct implementation of the applicable air quality plan.  | Less than Significant                 | Less than Significant                 | Less than Significant                 |
| No. 2 - Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. | Less than Significant with Mitigation | Less than Significant with Mitigation | Less than Significant with Mitigation |
| No. 3 - Expose sensitive receptors to substantial pollutant concentrations.   | Less than Significant with Mitigation | Less than Significant with Mitigation | Less than Significant with Mitigation |
| No. 4 - Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.  | Less than Significant                 | Less than Significant                 | Less than Significant                 |

The project would consist of a GPA/Rezone to convert the existing Industrial (I) land use designation to Specific Plan Area. The project would be required to adhere to the following regulatory measures to ensure compliance with the applicable City of San Marcos (City) Climate Action Plan Checklist measures (City of San Marcos 2020a):

**Electric Vehicle Charging Stations.** The project will include 927 total parking spaces. A minimum of 5% of parking spaces required would be equipped with EV charging stations or as otherwise required by CALGreen, whichever is more significant.

**Bicycle Infrastructure.** The project will include the following roadway and bicycle improvements:

### Active Transportation Improvements

1. Construct sidewalks to close sidewalk gaps on the site frontage on La Mirada Drive, Pacific Street, and Linda Vista Drive.
2. Construct or preserve space for the portions of proposed bicycle facilities on Linda Vista Drive from Pacific Street to South Las Posas Road immediately adjacent to the site.

3. Provide transit stop amenities including, at a minimum, bench, shelter, and trash can at the southbound stop at the intersection of South Las Posas Road/Linda Vista Drive located on the southwest corner of the intersection.

**Transportation Demand Management.** The project will develop and implement a Transportation Demand Management plan that will include all of the strategies below:

- Provide discounted monthly transit pass or provide at least 25% transit fare subsidy to residents/employees.
- Provide designated car-share, carpool, vanpool, and/or park-and-ride parking spaces.
- Provide pedestrian connections between all internal uses and to all existing or planned external streets around the project site(s).
- Provide secure bicycle parking spaces or bicycle racks, showers, and clothes lockers.
- Encourage telecommuting for employees (allow 1 telecommute day per week or compressed work weeks) or provide a telecommute work center with common office space and equipment available to residents.

**Water Heaters.** The project will install one of, or a combination of, the following water heater types in place of natural gas water heaters:

- Electric heat pump water heater
- Instantaneous electric water heater
- Electric tank
- Solar water heater with heat pump water heater backup
- Solar water heater with electric tank backup

**Landscaping Water Use.** The project's landscaping would meet the requirements within the City's Water Efficient Landscape Ordinance. As prescribed in Section 4.3.1 of the specific plan, The selected plants are well suited to the local soils and have proven to flourish within the project area's climate and are consistent with Assembly Bill 1881 requirements and the City of San Marcos Water Efficient Landscape Ordinance and Municipal Code, Title 20. The project will include composting, climate adapted plants, mulch, minimal use of turf, and smart water-efficient irrigation systems to minimize water use.

**Urban Tree Canopy.** The project is providing 927 parking spaces and will plant approximately 517 trees.

### 3.2.1 Existing Conditions

This section introduces the environmental setting of the proposed project area, including the meteorological/climate conditions for the project area, current physical setting, and pollutant levels in proximity to the proposed project.

#### Climate and Topography

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average summertime high temperature in the region is approximately 74°F. The average wintertime low temperature is approximately 49°F. Average precipitation in the local area is approximately 10 inches per year, with the bulk of precipitation falling between December and March (WRCC 2017).

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east; along with local meteorology, topography influences the dispersal and movement of pollutants in the air basin. The mountains to the east prevent dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High-Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

### Baseline Air Quality

#### Regional

The project site is located in the land use jurisdictions of the City of San Marcos (City), within the San Diego Air Basin (SDAB) under the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). The SDAB is 1 of 15 air basins that geographically divide the State of California.

The SDAB lies in the southwest corner of California and comprises the entire San Diego region, covering 4,260 square miles, and it is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High-Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and the air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone (O<sub>3</sub>), commonly known as smog (CARB 2019a).

Regional air quality can be best characterized from ambient measurements made by the SDAPCD. SDAPCD operates a network of ambient air monitoring stations throughout San Diego County, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS). These standards are set by the U.S. Environmental Protection Agency (EPA) or California Air Resources Board (CARB) for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare.

Pursuant to the 1990 Clean Air Act (CAA) amendments, the EPA classifies air basins (or portions thereof) as “attainment” or “nonattainment” for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as “attainment” for that pollutant. If an area exceeds the standard, the area is classified as “nonattainment” for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as “unclassified” or “unclassifiable.” The designation of “unclassifiable/attainment” means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, calls for the designation of areas as “attainment” or “nonattainment,” but based on the CAAQS rather than the NAAQS.

Current attainment designations for the SDAB for the criteria pollutants are presented in Table 3.2-2. As shown, SDAB is currently classified as a federal nonattainment area for O<sub>3</sub> and a state nonattainment area for particulate matter less than or equal to 10 microns (coarse particulate matter [PM<sub>10</sub>]), particulate matter less than or equal to 2.5 microns (fine particulate matter [PM<sub>2.5</sub>]), and O<sub>3</sub>. The portion of the SDAB where the project site is located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS (Appendix B).

**Table 3.2-2. San Diego Air Basin Attainment Classification**

| Pollutant                                     | Federal Designation   | State Designation |
|---|---|-------------------|
| O <sub>3</sub> (1-hour)                       | Attainment <sup>a</sup>                                     | Nonattainment     |
| O <sub>3</sub> (8-hour–1997)<br>(8-hour–2008) | Attainment (maintenance)<br><b>Nonattainment (moderate)</b> | Nonattainment     |
| NO <sub>2</sub>                               | Unclassifiable/attainment                                   | Attainment        |
| CO  | Attainment (maintenance)                                    | Attainment        |
| SO <sub>2</sub>                               | Unclassifiable/attainment                                   | Attainment        |
| PM <sub>10</sub>                              | Unclassifiable/attainment                                   | Nonattainment     |
| PM <sub>2.5</sub>                             | Unclassifiable/attainment                                   | Nonattainment     |
| Lead  | Unclassifiable/attainment                                   | Attainment        |
| Sulfates                                      | No federal standard   | Attainment        |
| Hydrogen sulfide                              | No federal standard   | Unclassified      |
| Visibility-reducing particles                 | No federal standard   | Unclassified      |
| Vinyl chloride                                | No federal standard   | No designation    |

**Sources:** EPA 2020 (federal); CARB 2021a (state).

**Notes:** O<sub>3</sub> = ozone; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter.

Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

<sup>a</sup> The federal 1-hour standard of 0.12 parts per million (ppm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

## Local

As previously mentioned, SDAPCD operates a network of ambient air monitoring stations throughout San Diego County that measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and NAAQS. SDAPCD monitors air quality conditions at 11 locations throughout the SDAB. Camp Pendleton monitoring station is the closest to the project site for O<sub>3</sub> and NO<sub>2</sub>. The Escondido–East Valley Parkway monitoring station ceased to collect data post-2015; thus, due to proximity to the site and similar geographic and climactic characteristics, the San Diego–11403 Rancho Carmel Drive monitoring station concentrations are considered most representative for the project site. Data at this station also was available for CO. The El Cajon–Lexington Elementary School monitoring station was used for sulfur dioxide (SO<sub>2</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>. Ambient concentrations of pollutants from 2019 through 2021 are presented in Table 3.2-3. Air quality within the project region was in compliance with the CAAQS and NAAQS for nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), SO<sub>2</sub>, and PM<sub>10</sub> (NAAQS only) during this monitoring period (Appendix B).



**Table 3.2-3. Local Ambient Air Quality Data**

| Averaging Time  | Unit              | Agency/ Method | Ambient Air Quality Standard | Measured Concentration by Year |        |        | Exceedances by Year |         |         |
|---|-------------------|----------------|------------------------------|--------------------------------|--------|--------|---------------------|---------|---------|
|   |                   |                |                              | 2019                           | 2020   | 2021   | 2019                | 2020    | 2021    |
| <b>Ozone (O<sub>3</sub>) – Camp Pendleton</b>   |                   |                |                              |                                |        |        |                     |         |         |
| Maximum 1-hour concentration  | ppm               | State          | 0.09                         | 0.075                          | 0.094  | 0.074  | 0                   | 0       | 0       |
| Maximum 8-hour concentration  | ppm               | State          | 0.070                        | 0.065                          | 0.074  | 0.059  | 0                   | 3       | 0       |
|   |                   | Federal        | 0.070                        | 0.064                          | 0.074  | 0.059  | 0                   | 3       | 0       |
| <b>Nitrogen Dioxide (NO<sub>2</sub>) – Camp Pendleton</b>   |                   |                |                              |                                |        |        |                     |         |         |
| Maximum 1-hour concentration  | ppm               | State          | 0.18                         | 0.053                          | 0.058  | 0.059  | 0                   | 0       | 0       |
|   |                   | Federal        | 0.100                        | 0.053                          | 0.058  | 0.059  | 0                   | 0       | 0       |
| Annual concentration  | ppm               | State          | 0.030                        | 0.005                          | 0.006  | 0.006  | –                   | –       | –       |
|   |                   | Federal        | 0.053                        | 0.005                          | 0.006  | 0.006  | –                   | –       | –       |
| <b>Carbon Monoxide (CO) – San Diego – 11403 Rancho Carmel Drive</b>                                     |                   |                |                              |                                |        |        |                     |         |         |
| Maximum 1-hour concentration  | ppm               | State          | 20                           | 4.1                            | 3.3    | 3.0    | 0                   | 0       | 0       |
|   |                   | Federal        | 35                           | 4.1                            | 3.3    | 3.0    | 0                   | 0       | 0       |
| Maximum 8-hour concentration  | ppm               | State          | 9.0                          | 2.5                            | 1.7    | 1.8    | 0                   | 0       | 0       |
|   |                   | Federal        | 9                            | 2.5                            | 1.7    | 1.8    | 0                   | 0       | 0       |
| <b>Sulfur Dioxide (SO<sub>2</sub>) – El Cajon – Lexington Elementary School</b>                         |                   |                |                              |                                |        |        |                     |         |         |
| Maximum 1-hour concentration  | ppm               | Federal        | 0.075                        | 0.0008                         | 0.002  | 0.002  | 0                   | 0       | 0       |
| Maximum 24-hour concentration   | ppm               | Federal        | 0.14                         | 0.0003                         | 0.0004 | 0.0003 | 0                   | 0       | 0       |
| Annual concentration  | ppm               | Federal        | 0.030                        | 0.0001                         | 0.0001 | 0.0001 | –                   | –       | –       |
| <b>Coarse Particulate Matter (PM<sub>10</sub>)<sup>a</sup> – El Cajon – Lexington Elementary School</b> |                   |                |                              |                                |        |        |                     |         |         |
| Maximum 24-hour concentration   | µg/m <sup>3</sup> | State          | 50                           | 37.4                           | 55.0   | 40.0   | 0.0 (0)             | 0.0 (0) | 0.0 (0) |
|   |                   | Federal        | 150                          | 38.7                           | 55.0   | 40.0   | 0.0 (0)             | 0.0 (0) | 0.0 (0) |
| Annual concentration  | µg/m <sup>3</sup> | State          | 20                           | ND                             | ND     | ND     | –                   | –       | –       |

**Table 3.2-3. Local Ambient Air Quality Data**

| Averaging Time   | Unit              | Agency/ Method | Ambient Air Quality Standard | Measured Concentration by Year |      |      | Exceedances by Year |      |      |
|--|-------------------|----------------|------------------------------|--------------------------------|------|------|---------------------|------|------|
|  |                   |                |                              | 2019                           | 2020 | 2021 | 2019                | 2020 | 2021 |
| <b>Fine Particulate Matter (PM<sub>2.5</sub>)<sup>a</sup> – El Cajon – Lexington Elementary School</b> |                   |                |                              |                                |      |      |                     |      |      |
| Maximum 24-hour concentration  | µg/m <sup>3</sup> | Federal        | 35                           | 23.8                           | 38.2 | 30.2 | –                   | –    | –    |
| Annual concentration   | µg/m <sup>3</sup> | State          | 12                           | 8.6                            | 10.3 | 9.7  | –                   | –    | –    |
|  |                   | Federal        | 12.0                         | 8.6                            | 10.3 | 9.7  | –                   | –    | –    |

Sources: CARB 2021b; EPA 2021.

Notes: ppm = parts per million by volume; ND = insufficient data available to determine the value; – = not available; µg/m<sup>3</sup> = micrograms per cubic meter.

Data taken from CARB iADAM (<http://www.CARB.ca.gov/adam>) and EPA AirData (<http://www.epa.gov/airdata/>) represent the highest concentrations experienced over a given year.

Daily exceedances for particulate matter are estimated days because PM<sub>10</sub> and PM<sub>2.5</sub> are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM<sub>10</sub>, or 24-hour SO<sub>2</sub>, nor is there a state 24-hour standard for PM<sub>2.5</sub>.

Camp Pendleton monitoring station is located at 21441 West B Street, Camp Pendleton, California.

San Diego monitoring station is located at 11403 Rancho Carmel Drive, San Diego, California.

The El Cajon-Lexington Elementary School monitoring station is located at 533 First Street, El Cajon, California.

<sup>a</sup> Measurements of PM<sub>10</sub> and PM<sub>2.5</sub> are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

### Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by CARB, include children, older adults, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to toxic air contaminants, such as children, the elderly, and the ill. Sensitive receptors include schools (grades Kindergarten through 12), daycare centers, nursing homes, retirement homes, health clinics, and hospitals within 2 kilometers of the facility (SDAPCD 2019). The closest existing sensitive receptors to the project site are single-family residents located approximately 150 feet west of the northwest corner of the project site, 1,420 feet southwest of the project site, TERI Country School located approximately 1,100 feet (0.2 miles) southeast of the project site, and La Mirada Academy located approximately 1,600 feet (0.4 miles) northwest of the project site.

### Pollutants and Effects

#### Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. These pollutants, as well as toxic

air contaminants (TACs), are discussed in the following text.<sup>1</sup> In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** O<sub>3</sub> is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O<sub>3</sub> precursors. These precursors are mainly oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O<sub>3</sub> concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O<sub>3</sub> formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O<sub>3</sub> exists in the upper atmosphere O<sub>3</sub> layer (stratospheric O<sub>3</sub>) and at the Earth's surface in the troposphere (ground-level O<sub>3</sub>/ozone).<sup>2</sup> The O<sub>3</sub> that the EPA and CARB regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O<sub>3</sub> is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O<sub>3</sub>. Stratospheric, or "good," O<sub>3</sub> occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O<sub>3</sub> layer, plant and animal life would be seriously harmed.

O<sub>3</sub> in the troposphere causes numerous adverse health effects. Short-term exposures (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). Inhalation of O<sub>3</sub> causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O<sub>3</sub> can reduce the volume of air that the lungs breathe in, thereby causing shortness of breath. O<sub>3</sub> in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from O<sub>3</sub> exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O<sub>3</sub> exposure. Available studies show that children are no more or less likely to suffer harmful effects than adults. However, it has been posited that children may be more susceptible to O<sub>3</sub> and other pollutants compared to adults for several reasons. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents, and adults who exercise or work outdoors, where O<sub>3</sub> concentrations are the highest, are at the greatest risk of harm from this pollutant (CARB 2019b). Health problems are also particularly acute in sensitive receptors such as the sick and elderly.

**Nitrogen Dioxide.** NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO<sub>x</sub> plays a major role, together with VOCs, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> is formed from fuel combustion under high temperature or pressure. In addition, NO<sub>x</sub> is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

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<sup>1</sup> The descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's "Criteria Air Pollutants" (EPA 2016) and CARB's "Glossary of Air Pollution Terms" (CARB 2019a).

<sup>2</sup> The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

Exposure to NO<sub>2</sub> can induce adverse health effects. NO<sub>2</sub> exposure can intensify responses to allergens in allergic asthmatics. A number of epidemiological studies have demonstrated associations between NO<sub>2</sub> exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO<sub>2</sub>. Long-term NO<sub>2</sub> exposure during childhood can lead to smaller lungs at maturity in children with higher levels of exposure compared to children with lower exposure levels. Children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2019c).

**Carbon Monoxide.** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

CO is harmful to humans in terms of health effects because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019d).

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO<sub>2</sub> are coal and oil used in power plants and industries; as such, the highest levels of SO<sub>2</sub> are generally found near large industrial complexes. In recent years, SO<sub>2</sub> concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO<sub>2</sub> and limits on the sulfur content of fuels.

SO<sub>2</sub> is of concern both because it is a direct respiratory irritant and because it contributes to the formation of sulfate and sulfuric acid in particulate matter (NRC 2005). Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO<sub>2</sub> exposure, compared with the non-asthmatic population (CARB 2019e). Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. People with asthma are thus of particular concern, both because they have increased baseline airflow resistance and because their SO<sub>2</sub>-induced increase in airflow resistance is greater than in healthy people, and it increases with the severity of their asthma (NRC 2005). SO<sub>2</sub> is thought to induce airway constriction via neural reflexes involving irritant receptors in the airways (NRC 2005). In addition, exposure at elevated levels of SO<sub>2</sub> (above 1 part per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of

mortality (CARB 2019e). The elderly and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2019e).

**Particulate Matter.** Particulate matter (PM) pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. PM can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. PM<sub>10</sub> consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. PM<sub>2.5</sub> consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOCs.

PM<sub>2.5</sub> and PM<sub>10</sub> pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM<sub>2.5</sub> and PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM<sub>10</sub> tends to collect in the upper portion of the respiratory system, PM<sub>2.5</sub> is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

A number of adverse health effects have been associated with exposure to PM<sub>2.5</sub> and PM<sub>10</sub>. For PM<sub>2.5</sub>, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, PM<sub>2.5</sub> is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease Project. Short-term exposures to PM<sub>10</sub> have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2017).

Long-term exposure (months to years) to PM<sub>2.5</sub> has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM<sub>10</sub> are less clear, although several studies suggest a link between long-term PM<sub>10</sub> exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that PM in outdoor air pollution causes lung cancer (CARB 2017).

**Lead.** Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline, the manufacturing of batteries, paints, ink, ceramics, and ammunition, and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including IQ performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

**Sulfates.** Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO<sub>2</sub> in the atmosphere and can result in respiratory impairment, as well as reduced visibility.

**Vinyl Chloride.** Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

**Hydrogen Sulfide.** Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

**Visibility-Reducing Particles.** Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for PM<sub>2.5</sub>.

**Volatile Organic Compounds.** Hydrocarbons are organic gases that are formed from hydrogen and carbon, and sometimes other elements. Hydrocarbons that contribute to formation of O<sub>3</sub> are referred to and regulated as VOCs. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry-cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O<sub>3</sub> and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

### Non-Criteria Air Pollutants

**Toxic Air Contaminants.** A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories, mobile sources, such as automobiles, and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

**Diesel Particulate Matter.** Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), and thus is a subset of PM<sub>2.5</sub> (CARB 2019f). DPM is typically composed of carbon particles (“soot,” also called black carbon) and numerous organic compounds, including more than 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2019f). CARB classified “particulate emissions from diesel-fueled engines” (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars, and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others.

Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of PM<sub>2.5</sub>, DPM also contributes to the same non-cancer health effects as PM<sub>2.5</sub> exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and older adults, who often have chronic health problems (CARB 2019f).

**Odorous Compounds.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of receptors.

**Valley Fever.** Coccidioidomycosis, more commonly known as “Valley Fever,” is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earth-moving operations, can cause the spores to become airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

Valley Fever has been reported in most counties in California with approximately 70% of the cases occurring within six counties including Kern, Kings, San Luis Obispo, Fresno, Tulare, and Madera Counties. The reported number of cases in California was 7,515 cases in 2018, with the Coccidioidomycosis incidence rate of 18.8 per 100,000

population in 2018. In San Diego County, the numbers of Valley Fever cases reported was 1,765 cases in 2018, or an incidence rate of 5.5 per 100,000 population (CDPH 2019; Nelson, pers. comm., 2019). The project site is wholly contained within the 92078 zip code, and within the 92078 zip code there were 3.1 cases per 100,000 people per year of Coccidioidomycosis between 2009 and 2018 (Nelson, pers. comm., 2019).

Even if present at a site, earth-moving activities may not result in increased incidence of Valley Fever. Propagation of *Coccidioides immitis* is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. *Coccidioides immitis* spores can be released when filaments are disturbed by earth-moving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to *Coccidioides immitis* does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

## 3.2.2 Regulatory Setting

The following section provides a general description of the applicable regulatory requirements pertaining to air quality, including federal, state, and local guidelines.

### Federal

#### Federal Clean Air Act

The federal CAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. Environmental Protection Agency is responsible for implementing most aspects of the CAA, including setting NAAQS for major air pollutants, setting hazardous air pollutant standards, approving state attainment plans, setting motor vehicle emission standards, issuing stationary source emission standards and permits, and establishing acid rain control measures, stratospheric O<sub>3</sub> protection measures, and enforcement provisions. Under the CAA, NAAQS are established for the criteria pollutants O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The CAA requires EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

### State

The federal CAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal CAA, and regulating emissions from motor vehicles and consumer products.



CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility-reducing particles are values that are not to be exceeded. All other criteria air pollutants regulated in California (e.g., sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles) are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 3.2-4.

**Table 3.2-4. Ambient Air Quality Standards**

| Pollutant                      | Averaging Time          | CAAQS <sup>a</sup>                 | NAAQS <sup>b</sup>                                     |                                       |
|--------------------------------|-------------------------|------------------------------------|--|---------------------------------------|
|                                |                         | Concentration <sup>c</sup>         | Primary <sup>c,d</sup>                                 | Secondary <sup>c,e</sup>              |
| O <sub>3</sub>                 | 1 hour                  | 0.09 ppm (180 µg/m <sup>3</sup> )  | —  | Same as primary standard <sup>f</sup> |
|                                | 8 hours                 | 0.070 ppm (137 µg/m <sup>3</sup> ) | 0.070 ppm (137 µg/m <sup>3</sup> ) <sup>f</sup>        |                                       |
| NO <sub>2</sub> <sup>g</sup>   | 1 hour                  | 0.18 ppm (339 µg/m <sup>3</sup> )  | 0.100 ppm (188 µg/m <sup>3</sup> )                     | Same as primary standard              |
|                                | Annual arithmetic mean  | 0.030 ppm (57 µg/m <sup>3</sup> )  | 0.053 ppm (100 µg/m <sup>3</sup> )                     |                                       |
| CO                             | 1 hour                  | 20 ppm (23 mg/m <sup>3</sup> )     | 35 ppm (40 mg/m <sup>3</sup> )                         | None                                  |
|                                | 8 hours                 | 9.0 ppm (10 mg/m <sup>3</sup> )    | 9 ppm (10 mg/m <sup>3</sup> )                          |                                       |
| SO <sub>2</sub> <sup>h</sup>   | 1 hour                  | 0.25 ppm (655 µg/m <sup>3</sup> )  | 0.075 ppm (196 µg/m <sup>3</sup> )                     | —                                     |
|                                | 3 hours                 | —                                  | —  | 0.5 ppm (1,300 µg/m <sup>3</sup> )    |
|                                | 24 hours                | 0.04 ppm (105 µg/m <sup>3</sup> )  | 0.14 ppm (for certain areas) <sup>g</sup>              | —                                     |
|                                | Annual                  | —                                  | 0.030 ppm (for certain areas) <sup>g</sup>             | —                                     |
| PM <sub>10</sub> <sup>i</sup>  | 24 hours                | 50 µg/m <sup>3</sup>               | 150 µg/m <sup>3</sup>                                  | Same as primary standard              |
|                                | Annual arithmetic mean  | 20 µg/m <sup>3</sup>               | —  |                                       |
| PM <sub>2.5</sub> <sup>i</sup> | 24 hours                | —                                  | 35 µg/m <sup>3</sup>                                   | Same as primary standard              |
|                                | Annual arithmetic mean  | 12 µg/m <sup>3</sup>               | 12.0 µg/m <sup>3</sup>                                 | 15.0 µg/m <sup>3</sup>                |
| Lead <sup>l,k</sup>            | 30-day average          | 1.5 µg/m <sup>3</sup>              | —  | —                                     |
|                                | Calendar quarter        | —                                  | 1.5 µg/m <sup>3</sup> (for certain areas) <sup>k</sup> | Same as primary standard              |
|                                | Rolling 3-month average | —                                  | 0.15 µg/m <sup>3</sup>                                 |                                       |
| Hydrogen sulfide               | 1 hour                  | 0.03 ppm (42 µg/m <sup>3</sup> )   | —  | —                                     |
| Vinyl chloride <sup>l</sup>    | 24 hours                | 0.01 ppm (26 µg/m <sup>3</sup> )   | —  | —                                     |
| Sulfates                       | 24 hours                | 25 µg/m <sup>3</sup>               | —  | —                                     |

**Table 3.2-4. Ambient Air Quality Standards**

| Pollutant                     | Averaging Time                        | CAAQS <sup>a</sup>  | NAAQS <sup>b</sup>     |                          |
|-------------------------------|---------------------------------------|---|------------------------|--------------------------|
|                               |                                       | Concentration <sup>c</sup>  | Primary <sup>c,d</sup> | Secondary <sup>c,e</sup> |
| Visibility reducing particles | 8 hours (10:00 a.m. to 6:00 p.m. PST) | Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70% | —                      | —                        |

**Source:** CARB 2021c.

**Notes:** CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; O<sub>3</sub> = ozone; ppm = parts per million by volume; µg/m<sup>3</sup> = micrograms per cubic meter; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; mg/m<sup>3</sup> = milligrams per cubic meter; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter.

- <sup>a</sup> California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter—PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- <sup>b</sup> National standards (other than O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O<sub>3</sub> standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than 1. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.
- <sup>c</sup> Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 °C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25 °C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- <sup>d</sup> National primary standards: the levels of air quality necessary, with an adequate margin of safety to protect the public health.
- <sup>e</sup> National secondary standards: the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- <sup>f</sup> On October 1, 2015, the primary and secondary NAAQS for O<sub>3</sub> were lowered from 0.075 ppm to 0.070 ppm.
- <sup>g</sup> To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- <sup>h</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- <sup>i</sup> On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- <sup>j</sup> CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- <sup>k</sup> The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

## California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. Air pollution from commercial and industrial facilities is regulated by local air quality management districts, whereas mobile sources of air pollution are regulated by CARB and the EPA. All air pollution control districts have been formally designated as “attainment” or “nonattainment” for each state air quality standard,

as shown in Table 3.2-2. Areas in California where ambient air concentrations of pollutants are higher than the state standard are considered to be in “non-attainment” status for that pollutant. Non-attainment designations are categorized into three levels of severity: (1) moderate, (2) serious, and (3) severe. If there are inadequate or inconclusive data to make a definitive attainment designation, districts are considered “unclassified.”

### Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807. The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) hazardous air pollutants. In 1987, the Legislature enacted the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk by 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several airborne toxic control measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

### California Health and Safety Code, Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

### Local

#### San Diego Air Pollution Control District

Although CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The project site is located within the SDAB and is subject to SDAPCD guidelines and regulations.

SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The Regional Air Quality Strategy (RAQS) for the SDAB was initially adopted in 1991 and is updated every 3 years (most recently in 2020). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O<sub>3</sub>. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of development of their general plans.

The 8-Hour Ozone Attainment Plan for San Diego County indicated that local controls and state programs would allow the region to reach attainment of the federal 8-hour O<sub>3</sub> standard by 2018 (SDAPCD 2016). In this plan, SDAPCD relied on the RAQS to demonstrate how the region will comply with the federal O<sub>3</sub> standard. The RAQS details how the region will manage and reduce O<sub>3</sub> precursors (NO<sub>x</sub> and VOCs) by identifying measures and regulations intended to reduce these contaminants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS. In response to court decisions, some elements in the 8-hour Ozone Attainment Plan for San Diego County required updates. CARB staff prepared the 2018 Updates to the California State Implementation Plan (SIP) to update SIP elements for nonattainment areas throughout the state. The applicable ozone attainment date for San Diego County is in 2032. The 2020 Ozone Attainment Plan this complies with the Severe Nonattainment Area classification planning requirements and includes demonstrations for attainment of the 75 part per billion and 70 part per billion ozone standards by 2026 and 2032, respectively. The 2020 Plan includes a regionwide inventory of O<sub>3</sub> forming emissions, a reasonably further progress demonstration showing emissions reductions during the years leading to the attainment dates, an assessment of Reasonably Available Control Technology and Reasonably Available Control Measures, and contingency measures in the event the emissions controls fall short of achieving the needed reductions.

In December 2005, the SDAPCD also prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill 656 in San Diego County (Senate Bill 656 required additional controls to reduce ambient concentrations of PM<sub>10</sub> and PM<sub>2.5</sub>). In the report, the SDAPCD evaluates implementation of source-control measures that would reduce PM emissions associated with residential wood combustion (SDAPCD 2005).

In addition to SDAPCD's regional planning efforts, the following SDAPCD rules and regulations also would apply to the project:

- **SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources.** Requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, NO<sub>x</sub>, SO<sub>x</sub>, or PM<sub>10</sub> to be equipped with best available control technology. For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 1998).
- **SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated

as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976).
- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2021).

### City of San Marcos General Plan

The City's General Plan (City of San Marcos 2012) includes various policies related to reducing air pollutant emissions. Applicable policies include the following:

#### Land Use and Community Design Element

Goal LU-2: Promote development standards and land use patterns that encourage long-term environmental sustainability.

Policy LU-2.1: Promote compact development patterns that reduce air pollution and automobile dependence and facilitate walking, bicycling, and transit use.

Goal LU-3: Develop land use patterns that are compatible with and support a variety of mobility opportunities and choices.

Policy LU-3.1: Require that new development and redevelopment incorporate connections and reduce barriers between neighborhoods, transit corridors, and activity centers within the City.

#### Mobility Element

Policy M-2.1: Work with new development to design roadways that minimize traffic volumes and/or speed, as appropriate within residential neighborhoods; while maintaining the City's desire to provide connectivity on the roadway network.

Goal M-3: Promote and encourage use of alternative transportation modes, including transit, bicycles, neighborhood electric vehicles (NEVs), and walking, within the City.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning, and throughout Chapter 3, Environmental Analysis, of this EIR.

### 3.2.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to air quality are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to air quality would occur if the project would:

- Threshold No. 1 Conflict with or obstruct implementation of the applicable air quality plan.
- Threshold No. 2 Result in a cumulatively considerable new increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
- Threshold No. 3 Expose sensitive receptors to substantial pollutant concentrations.
- Threshold No. 4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. For purposes of this EIR, reference has been made to thresholds established by SDAPCD in Rule 20.2 for permitted stationary sources. SDAPCD sets forth quantitative emission thresholds in Rule 20.2 below which a stationary source would not have a significant impact on ambient air quality. For CEQA purposes, these thresholds can be used to demonstrate that a project's total emissions (e.g., stationary and fugitive emissions, as well as emissions from mobile sources) would not result in a significant impact to air quality. While the proposed project is a land use development project (and not a stationary source project), the Rule 20.2 thresholds provide a representative and relevant proxy for purposes of assessing project impacts. Therefore, project-related air quality impacts assessed in this EIR would be considered significant if any of the applicable significance thresholds developed by SDAPCD for Rule 20.2, as presented in Table 3.2-5, are exceeded. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 3.2-5, a project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

**Table 3.2-5. San Diego Air Pollution Control District Air Quality Significance Thresholds**

| Construction Emissions                            |                                  |                |               |
|---|----------------------------------|----------------|---------------|
| Pollutant   | Total Emissions (Pounds per Day) |                |               |
| Respirable particulate matter (PM <sub>10</sub> ) | 100                              |                |               |
| Fine particulate matter (PM <sub>2.5</sub> )      | 55                               |                |               |
| Oxides of nitrogen (NO <sub>x</sub> )             | 250                              |                |               |
| Sulfur oxides (SO <sub>x</sub> )                  | 250                              |                |               |
| Carbon monoxide (CO)                              | 550                              |                |               |
| Volatile organic compounds (VOC)                  | 137 <sup>a</sup>                 |                |               |
| Operational Emissions                             |                                  |                |               |
| Pollutant   | Total Emissions                  |                |               |
|   | Pounds per Hour                  | Pounds per Day | Tons per Year |
| Respirable particulate matter (PM <sub>10</sub> ) | —                                | 100            | 15            |
| Fine particulate matter (PM <sub>2.5</sub> )      | —                                | 55             | 10            |

**Table 3.2-5. San Diego Air Pollution Control District Air Quality Significance Thresholds**

| Construction Emissions                |     |                  |      |
|---------------------------------------|-----|------------------|------|
| Oxides of nitrogen (NO <sub>x</sub> ) | 25  | 250              | 40   |
| Sulfur oxides (SO <sub>x</sub> )      | 25  | 250              | 40   |
| Carbon monoxide (CO)                  | 100 | 550              | 100  |
| Lead and lead compounds               | —   | 3.2              | 0.6  |
| Volatile organic compounds (VOC)      | —   | 137 <sup>a</sup> | 13.7 |

**Source:** SDAPCD Rules 1501 and 20.2(d)(2).

<sup>a</sup> VOC threshold based on South Coast Air Quality Management District (SCAQMD) levels per the SCAQMD and the Monterey Bay Air Pollution Control District, which have similar federal and state attainment status to San Diego.

### Construction

Construction assumptions, including timing, phasing, and equipment type and quantity, as well as worker and vendor truck trips, were based on information provided by the applicant. Default values provided by the California Emissions Estimator Model (CalEEMod) were used where detailed project information was not available. Construction is anticipated to occur in five phases consisting of site preparation, grading, building construction, paving, and architectural coating. The analysis contained herein is based on the following assumptions (the duration of phases is approximate):

- Site Preparation: 10 days
- Grading: 2 months
- Building Construction: 14 months
- Paving: 1 month
- Architectural Coating: 1 month

The construction equipment mix used for estimating construction emissions herein is based on CalEEMod defaults and is shown in Table 3.2-6. Project construction would be subject to implement dust control strategies as required by SDAPCD Rule 55 regulating fugitive dust. To reflect implementation of proposed dust control strategies, the following was assumed in CalEEMod:

- Water exposed area two times per day (55% reduction in PM<sub>10</sub> and PM<sub>2.5</sub>)
- Limit unpaved road travel to 15 miles per hour

**Table 3.2-6. Construction Scenario Assumptions**

| Construction Phase | One-Way Trips |                     |                   | Equipment                 | Quantity | Hours Per Day |
|--------------------|---------------|---------------------|-------------------|---------------------------|----------|---------------|
|                    | Daily Workers | Daily Vendor Trucks | Total Haul Trucks |                           |          |               |
| Site Preparation   | 18            | 4                   | 0                 | Rubber-Tired Dozers       | 3        | 8             |
|                    |               |                     |                   | Tractors/Loaders/Backhoes | 4        | 8             |
| Grading            | 20            | 4                   | 0                 | Excavators                | 2        | 8             |
|                    |               |                     |                   | Graders                   | 1        | 8             |
|                    |               |                     |                   | Rubber-Tired Dozers       | 1        | 8             |
|                    |               |                     |                   | Scrapers                  | 2        | 8             |

**Table 3.2-6. Construction Scenario Assumptions**

| Construction Phase    | One-Way Trips |                     |                   | Equipment                 | Quantity | Hours Per Day |
|-----------------------|---------------|---------------------|-------------------|---------------------------|----------|---------------|
|                       | Daily Workers | Daily Vendor Trucks | Total Haul Trucks |                           |          |               |
| Building Construction | 474           | 108                 | 0                 | Tractors/Loaders/Backhoes | 2        | 8             |
|                       |               |                     |                   | Cranes                    | 1        | 7             |
|                       |               |                     |                   | Forklifts                 | 3        | 8             |
|                       |               |                     |                   | Generator Sets            | 1        | 8             |
|                       |               |                     |                   | Tractors/Loaders/Backhoes | 3        | 7             |
|                       |               |                     |                   | Welders                   | 1        | 8             |
| Paving                | 16            | 4                   | 0                 | Pavers                    | 2        | 8             |
|                       |               |                     |                   | Paving Equipment          | 2        | 8             |
|                       |               |                     |                   | Rollers                   | 2        | 8             |
| Architectural Coating | 96            | 4                   | 0                 | Air Compressors           | 1        | 6             |

Source: Appendix B.

### Health Risk Assessment

A health risk assessment (HRA) was performed to assess the impact of construction on sensitive receptors proximate to the project (see Appendix B to Appendix B of the EIR). The analysis includes an HRA associated with emissions from construction of the project based on the methodologies prescribed in the Office of Environmental Health Hazard Assessment Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2018). To implement the Office of Environmental Health Hazard Assessment Guidelines based on Project information, the SDAPCD has developed a three-tiered approach where each successive tier is progressively more refined, with fewer conservative assumptions. The SDAPCD Supplemental Guidelines for Submission of Air Toxics “Hot Spots” Program Health Risk Assessments provides guidance with which to perform HRAs within SDAB (SDAPCD 2022).

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends a carcinogenic (cancer) risk threshold of 10 in a million. Additionally, some TACs increase non-cancer health risk due to long-term (chronic) exposures. The Chronic Hazard Index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The SDAPCD recommends a Chronic Hazard Index significance threshold of 1.0 (project increment). The exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. No short-term, acute relative exposure level has been established for DPM; therefore, acute impacts of DPM are not addressed in this assessment. This HRA evaluated the risk to future residents from diesel emissions from exhaust from on-site construction equipment and diesel haul and vendor trucks.

The dispersion modeling of DPM was performed using the American Meteorological Society/EPA Regulatory Model (AERMOD), which is the model SDAPCD requires for atmospheric dispersion of emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and



simple and complex terrain (Appendix B). For the project, AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the “X/Q” values. X/Q is a dispersion factor that is the average effluent concentration normalized by source strength and is used as a way to simplify the representation of emissions from many sources. The X/Q values of ground-level concentrations were determined for construction emissions using AERMOD and the maximum concentrations determined for the 1-hour and Period averaging periods. Principal parameters of this modeling are presented in Table 3.2-7.

**Table 3.2-7. AERMOD Principal Parameters**

| Parameter                               | Details   |
|---|---|
| Meteorological Data                     | The latest 3-year meteorological data (2010–2012) for the Escondido Station (Station ID 3177) from SDAPCD were downloaded and then input to AERMOD. For cancer or chronic noncancer risk assessments, the average cancer risk of all years modeled was used.  |
| Urban versus Rural Option               | Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. However, based on the SDAPCD guidelines, the rural dispersion option was selected due to the Project’s proximity to the ocean. |
| Terrain Characteristics                 | The terrain in the vicinity of the modeled Project site is generally flat. The elevation of the modeled site is about 545 feet above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate.                               |
| Elevation Data                          | Digital elevation data were imported into AERMOD, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the United States Geological Survey’s National Elevation Dataset format with a 10-meter resolution.                 |
| Emission Sources and Release Parameters | Air dispersion modeling of DPM from construction equipment was conducted using emissions estimated using the CalEEMod, assuming emissions would occur 8 hours per day, 5 days per week. The Project area was modeled as a series of volume sources.   |
| Source Release Characterizations        | Based on EPA methodology, the modeled line volume sources would result in a release height of 3.4 meters, a plume height of 6.8 meters, and a plume width of 8.6 meters for off-road equipment and diesel trucks (EPA 2015).  |
| Discrete Receptors                      | A uniform Cartesian grid overlaying residential receptors in close proximity to the project with 20-meter resolution was placed. Additional discrete receptors were placed over residences not within the uniform Cartesian grid.   |

**Note:** See Appendix B.

Dispersion model plot files from AERMOD were then imported into CARB’s Hotspots Analysis and Reporting Program Version 2 to determine health risk, which requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. For the residential health risk, the HRA assumes exposure would start in the third trimester of pregnancy. The results of the HRA are provided in Appendix B to Appendix B of the EIR.

## Operation

Residential uses are anticipated to generate air pollutant emissions from area sources, including emissions from consumer product use, architectural coating, landscape maintenance equipment, and natural gas fireplaces. Emissions associated with the operations phase of the proposed project were estimated using CalEEMod. Operational year 2024 was assumed because it would coincide with completion of construction.

### Area Sources

Consumer products are chemically formulated products used by household and institutional consumers, including detergents, cleaning compounds, polishes, floor finishes, cosmetics, personal care products, home, lawn, and garden products, disinfectants, sanitizers, aerosol paints, and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2021). The CalEEMod default values for consumer products were modeled.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of surface coatings based on the VOC emissions factor, the building square footage, the assumed fraction of surface area, and the reapplication rate.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. Emissions from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. Emissions associated with potential landscape maintenance equipment were included to conservatively capture potential project operational emission sources.

It is anticipated that proposed residential uses could include natural gas fireplaces. Thus, natural gas fireplaces are included in the CalEEMod analysis.

### Energy Sources

As represented in CalEEMod, energy sources would include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gases in CalEEMod, because criteria pollutant emissions occur at the site of the power plant, which is typically off site.

Therefore, for the purposes of the air quality analysis, the energy source parameters focus on criteria air pollutants generated as a result of natural gas consumption within the built environment. Natural gas consumption is attributed to systems like HVAC and water heating. The current Title 24, Part 6 standards, referred to as the “2019 Title 24 Building Energy Efficiency Standards,” became effective on January 1, 2020. The current version of CalEEMod assumes compliance with the 2019 Title 24 Building Energy Efficiency Standards (CAPCOA 2021). CalEEMod defaults were assumed for electricity and natural gas.

### Mobile Sources (Motor Vehicles)

The proposed project would generate air quality emissions from mobile sources (vehicular traffic) as a result of the residents traveling to and from the project site. CalEEMod was used to estimate emissions from such mobile sources (refer to Appendix B), with the default trip generation rates in CalEEMod adjusted to reflect the overall weekday daily trips based on the Vehicle Miles Traveled (VMT) Analysis (Appendix J), and Local Transportation Analysis (Appendix K). The project-specific trip length from the VMT Analysis based on the SANDAG regional travel demand model was incorporated into the modeling as well. CalEEMod default data, fleet mix, and emissions factors were used for the model inputs. CalEEMod default vehicle emission factors and vehicle fleet mix for 2024, as based on the CARB EMFAC2017 model, were used to estimate emissions associated with vehicular sources.

## 3.2.4 Project Impact Analysis

### ***Threshold No. 1: Would the project conflict with or obstruct implementation of the applicable air quality plan?***

As mentioned in Section 3.2.2, Regulatory Setting, the SDAPCD is responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the SDAB—specifically, the SIP and RAQS.<sup>3</sup> SANDAG is responsible for developing growth projection forecasts and data that are used by the SDAPCD in preparing the SIP and RAQS.

Although the SDAPCD and City do not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County’s Guidelines for Determining Significance and Report and Format and Content Requirements – Air Quality does discuss conformance with the RAQS (County of San Diego 2007). The guidance indicates that, if the project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG’s growth projections for a City, the project would not be in conflict with the RAQS. If a project includes development that is greater than that anticipated in the local plan and SANDAG’s growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality (County of San Diego 2007). The project’s proposed zoning is compared to the existing zoning on the site and then the project’s growth inducing impacts are compared to those included in the SANDAG’s growth projections for the City.

The project site is currently zoned Industrial (I) with a floor-to-area ratio of 0.50. The floor-to-area ratio means the ratio of gross building area of the development, excluding structured parking areas, proposed for the project divided by the net lot area. According to the City of San Marcos Municipal Code, the Industrial (I) land use zone is intended to “provide a setting for the full range of indoor manufacturing, distribution, warehousing, processing, and general service uses that are adequately served by vehicular arterials and utilities. Industries that use hazardous materials, require heavy equipment, and/or that generate sustained noise levels are deemed appropriate for this Zone, and may be permitted according to the standards of this chapter. The I Zone is intended to implement and be consistent with the Industrial land use designation of the General Plan” (City of San Marcos 2020b). Based on the existing land use designation/zoning of Industrial (I), the most intensive land use is an industrial park, and the setback, landscaping, and parking requirements per the zoning code were used to determine the maximum size for the industrial park (City of San Marcos 2020b). Implementation of the existing Industrial (I) land use/zoning at the site may generate 11,721,243 VMT annually (Appendix J).

The project proposes development of 449 residential units on 15.28 acres within the approximately 33-acre project site. The project is estimated to generate 7,692,187 VMT annually as estimated in the Transportation Impact Analysis (LLG 2022).

The City projects an increase of 3,170 housing units between 2020 and 2035, as reported in the SANDAG Series 13 forecast used in formulating the SIP and RAQS (SANDAG 2013). The proposed project’s 449 residential units would account for 16% of the projected housing unit increase in the City between 2020 and 2035. Furthermore, when added to the cumulative projects in Table 2-3, the City would not exceed the projected increase in housing units as forecasted by SANDAG. Because the proposed project would not exceed the City’s growth projections, the project would result in regional growth that is accounted for within the RAQS. Therefore, implementation of the

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<sup>3</sup> For the purpose of this discussion, the relevant federal air quality plan is the Ozone Attainment Plan (SDAPCD 2020). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

proposed project would not conflict with the RAQS or SIP, and project development would be consistent with the growth in the region.

It also is noted that the project site's infill location near existing retail uses, jobs, and recreation, and its proximity to State Route 78, the Palomar College Sprinter station, and bus station make for ideal connectivity to a regional transportation network, employment centers, and shopping and services. In addition, the project would implement applicable measures in the City's 2020 Climate Action Plan Consistency Checklist (see Appendix C of Appendix B), which would result in co-benefits to air quality attributable to installing electric vehicle charging stations, installing bicycle infrastructure, implementing a Transportation Demand Management Plan, and reducing parking near transit.

The project would not conflict with or obstruct implementation of the applicable air quality plan because the project would not propose growth in excess of that within the RAQS or SIP and the project may generate fewer emissions than what is currently zoned for the site as VMT is the main driver of emissions. Impacts would be less than significant.

***Threshold No. 2: Would the project 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?***

In analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the air basin is designated as nonattainment for the CAAQS and NAAQS. If a project does not exceed thresholds and is determined to have less-than-significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

## **Construction**

Construction of the proposed residential uses would result in the temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emissions levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions would primarily result from grading and site preparation activities. NO<sub>x</sub> and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Construction emissions were calculated using CalEEMod for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated during each year of construction (2023 and 2024). Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the applicant, and is intended to represent a reasonable scenario based on the best information available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.4.2.1, Construction, of EIR Appendix B. The information contained in Appendix A (CalEEMod Output Files) of EIR Appendix B was used for the CalEEMod inputs.

Construction of proposed residential uses would generate temporary air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The proposed project would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that a project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an approximately 55% reduction of PM. Compliance with Rule 55 would be required as a standard condition of project approval or for issuance of a grading permit.

Exhaust from internal combustion engines used by construction equipment, hauling trucks (dump trucks), vendor trucks (delivery trucks), and worker vehicles would result in temporary emissions of NO<sub>x</sub>, VOC, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1, Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015). The proposed project would comply with SDAPCD Rule 67.0.1 through the incorporation of low-VOC architectural coatings. The VOC content assumed for the analysis was 50 g/L for interior coatings and 100 g/L for exterior coatings.

Table 3.2-8 shows the estimated maximum daily construction emissions associated with the construction of the proposed residential uses. Details of the emissions calculations are provided in Appendix B of this EIR.

**Table 3.2-8. Estimated Maximum Daily Construction Emissions - Unmitigated**

| Year                           | VOC            | NO <sub>x</sub> | CO           | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|--------------------------------|----------------|-----------------|--------------|-----------------|------------------|-------------------|
|                                | Pounds per Day |                 |              |                 |                  |                   |
| 2023                           | 3.39           | 34.73           | 29.46        | 0.08            | 10.29            | 5.76              |
| 2024                           | 188.94         | 19.15           | 28.57        | 0.08            | 5.35             | 1.88              |
| <b>Maximum daily emissions</b> | <b>188.94</b>  | <b>34.73</b>    | <b>29.46</b> | <b>0.08</b>     | <b>10.29</b>     | <b>5.76</b>       |
| <i>Emission threshold</i>      | 75             | 250             | 550          | 250             | 100              | 55                |
| <b>Threshold exceeded?</b>     | <b>Yes</b>     | <b>No</b>       | <b>No</b>    | <b>No</b>       | <b>No</b>        | <b>No</b>         |

Source: Appendix B.

Notes: VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns.

See Appendix A of Appendix B for output files and modeling details.

The values shown are the maximum summer or winter daily emissions results from CalEEMod and provided in Appendix A of Appendix B. The maximum emissions assume compliance with SDAPCD Rule 67.0.1, Architectural Coatings, and SDAPCD Rule 55, Fugitive Dust Control.

As shown in Table 3.2-8, daily construction emissions would not exceed the significance thresholds for NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>; however, the proposed project would exceed the significance threshold for VOC.

### Operation

Following completion of construction activities, proposed residential uses would generate VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources, including vehicular traffic generated by residents; area sources, including the use of landscaping equipment and consumer products; and from architectural coatings.

Table 3.2-9 presents the maximum daily emissions associated with operation of the proposed residential uses. The values shown for mobile sources (motor vehicles), energy sources, and area sources are the maximum of either the summer or winter daily emissions results from CalEEMod, whichever is greater.

**Table 3.2-9. Estimated Project Maximum Daily Operational Emissions - Unmitigated**

| Emission Source            | VOC            | NO <sub>x</sub> | CO            | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|----------------------------|----------------|-----------------|---------------|-----------------|------------------|-------------------|
|                            | Pounds per Day |                 |               |                 |                  |                   |
| Area                       | 12.77          | 7.88            | 40.29         | 0.05            | 0.81             | 0.81              |
| Energy                     | 0.10           | 0.82            | 0.35          | 0.01            | 0.07             | 0.07              |
| Mobile                     | 7.76           | 8.55            | 71.42         | 0.15            | 16.31            | 4.42              |
| <b>Total</b>               | <b>20.63</b>   | <b>17.25</b>    | <b>112.06</b> | <b>0.21</b>     | <b>17.19</b>     | <b>5.30</b>       |
| <i>Emission threshold</i>  | 55             | 250             | 550           | 250             | 100              | 55                |
| <b>Threshold exceeded?</b> | <b>No</b>      | <b>No</b>       | <b>No</b>     | <b>No</b>       | <b>No</b>        | <b>No</b>         |

**Source:** Appendix B.

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns.

See Appendix A of Appendix B for output files and modeling details.

As shown in Table 3.2-9, the daily operational emissions from implementation of the proposed project would not exceed the significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

However, as shown in Table 3.2-8 above, the proposed project would exceed the significance threshold for VOC during construction (**Impact AQ-1**). Because VOC is a precursor to the formation of ozone, and because SDAB is a nonattainment area under the ozone NAAQS and CAAQS, the potential for the proposed project to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or California ambient air quality standard is less than significant with mitigation incorporated.

**Threshold No. 3: Would the project expose sensitive receptors to substantial pollutant concentrations?**

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts on those persons termed “sensitive receptors” are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by CARB, include children, older adults, athletes, and people with cardiovascular and chronic respiratory diseases; however, for the purposes of this analysis, residents are also considered sensitive receptors. As such, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes.

### Health Impacts of Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants. State law has established the framework for California’s TAC identification and control program, which is generally more stringent than the federal program and

aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs. The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy-duty equipment operations and heavy-duty trucks, and the associated health impacts to sensitive receptors. The following measures are required by state law to reduce diesel particulate emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to 13 CCR 2485, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

The greatest potential for TAC emissions during construction would be DPM emissions from heavy-duty equipment operations and heavy-duty trucks during construction of the project and the associated health impacts to sensitive receptors.

An HRA was performed to evaluate the risk from diesel exhaust emissions on existing sensitive receptors and future on-site receptors from construction activities. The HRA methodology was described in Section 3.2.3, Thresholds of Significance, and the detailed assessment is provided in Appendix B. Table 3.2-10 summarizes the results of the HRA for proposed project construction.

**Table 3.2-10. Construction Activity Health Risk Assessment Results**

| Impact Parameter | Units          | Project Impact | CEQA Threshold | Level of Significance |
|------------------|----------------|----------------|----------------|-----------------------|
| Cancer Risk      | Per Million    | 6.4            | 10.0           | Less than Significant |
| HIC              | Not Applicable | 0.005          | 1.0            | Less than Significant |

Source: Appendix B.

Notes: CEQA = California Environmental Quality Act; HIC = Chronic Hazard Index.

The results of the HRA demonstrate that the TAC exposure from construction diesel exhaust emissions would result in cancer risk on site below the 10 in 1 million threshold, as well as Chronic Hazard Index less than 1.0. Therefore, TAC emissions from construction of the proposed project would not expose sensitive receptors to substantial pollutant concentrations and would result in a less than significant impact. Upon completion of construction, the project would not generate substantial TAC emissions. As such, impacts would be less than significant during operation.

### Health Impacts of Carbon Monoxide

As described previously, exposure to high concentrations of CO can result in dizziness, fatigue, chest pain, headaches, and impairment of central nervous system functions. Mobile-source impacts, including those related to CO, occur on two scales. Regionally, project-related construction travel would add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, construction traffic would be added to the roadway system in the vicinity of the project site. Although the SDAB is currently an attainment area for CO, there is a potential for the formation of microscale CO “hotspots” to occur immediately around points of congested traffic. Hotspots can form if such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and/or is operating on roadways already crowded with non-project traffic. Because of continued improvement in vehicular emissions at a rate faster than

the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing. The SDAB is a CO maintenance area (western and central part of the SDAB only).

The Governor's Office of Planning and Research and the California Natural Resources Agency have issued new CEQA Guidelines for analyzing transportation impacts. By July 1, 2020, all CEQA lead agencies must analyze a project's transportation impacts using VMT. VMT measures the distances vehicles will travel to and from a project, rather than congestion levels at intersections (level of service LOS, graded on a scale of A-F). To account for this shift from level of service to VMT—such that vehicle congestion is no longer modeled and available—but to nonetheless evaluate the potential for CO hotspots for the hypothetical development scenario, this EIR utilizes CO modeling analyses performed by the South Coast Air Quality Management District (SCAQMD) relative to 1-hour and 8-hour concentrations as follows.

The SCAQMD conducted CO modeling for the 2003 Air Quality Management Plan (SCAQMD 2003, Appendix V) for the four worst-case intersections in the South Coast Air Basin: (1) Wilshire Boulevard and Veteran Avenue, (2) Sunset Boulevard and Highland Avenue, (3) La Cienega Boulevard and Century Boulevard, and (4) Long Beach Boulevard and Imperial Highway. At the time, the 2003 Air Quality Management Plan was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 ppm at the intersection of Wilshire Boulevard and Veteran Avenue.

A daily traffic volume of 100,000 vehicles (as considered in the SCAQMD modeling) as a result of the proposed project, would be at least double the traffic volumes of nearby intersections (LLG 2022).<sup>4</sup> However, if “peak” modeled 1-hour concentration from SCAQMD's analysis of 100,000 vehicle traffic volumes of the 4.6 ppm were added to the maximum 1-hour CO concentration from 2019 through 2021 at the San Diego–11403 Rancho Carmel Drive monitoring station (see Table 3.2-3) of 4.1 ppm (in 2019), the 1-hour CO concentration in the project area would total 8.7 ppm. This “worst case scenario”—modeling at least double the traffic compared to that experienced in the proposed project area—would still result in 1-hour CO concentrations well below the CAAQS 1-hour CO threshold of 20 ppm.

Concerning 8-hour concentrations, SCAQMD modeled future year 8-hour CO concentrations at the Central Los Angeles monitoring site of 4.6 ppm in 2020. Adding the 4.6 ppm to the maximum 8-hour CO concentration from 2019 through 2021 at the San Diego–11403 Rancho Carmel Drive monitoring station (see Table 3.2-3) of 2.5 ppm (in 2019) would result in a total 8-hour CO concentration of 7.1 ppm. Again, this “worst case scenario” 8-hour CO concentration assuming traffic counts far above that experienced in the proposed project area would still be well below the CAAQS 8-hour threshold of 9.0 ppm.

Said another way, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would cause area traffic volumes to exceed 100,000 vehicles per day. The proposed project would not increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day (LLG 2022). Therefore, the proposed project is not anticipated to create a CO hotspot. As such, impacts to sensitive receptors with regard to potential CO hotspots resulting from the project and hypothetical development scenario's contribution to cumulative traffic-related air quality impacts would be less than significant.

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<sup>4</sup> For each study intersection in each scenario evaluated in the VMT Analysis, all 10 study intersections were estimated to result in less than 100,000 vehicles per day in every scenario evaluated (ranging from 4,649 vehicles to 44,977 vehicles).



## Health Impacts of Criteria Air Pollutants

The California Supreme Court's *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502 decision (referred to herein as the Friant Ranch decision) (issued on December 24, 2018) addresses the need to correlate mass emission values for criteria air pollutants to specific health consequences, and contains the following direction from the California Supreme Court: "The Environmental Impact Report (EIR) must provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must explain what the agency does know and why, given existing scientific constraints, it cannot translate potential health impacts further" (italics original). (For further discussion of the Friant Ranch decision, please see Appendix C of this EIR.)

For purposes of this EIR, it is first noted that the SDAPCD, CARB, and EPA currently have not approved a quantitative method to reliably, meaningfully, and consistently translate the mass emissions' estimates for the criteria air pollutants resulting from a project to specific health effects. In addition, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days. Appendix B to this EIR, however, further describes the general health effects associated with criteria air pollutants, which also are summarized here in Section 3.2.1, Existing Conditions.

As previously described, construction of the proposed project would result in emissions that exceed the threshold for VOC without mitigation; however, construction would not exceed significance thresholds for NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> (refer to Table 3.2-8). Operation of the proposed project would not exceed significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> (refer to Table 3.2-9). As such, it is not anticipated that the project would contribute to exposure of sensitive receptors to substantial pollutant concentrations with regard to such emissions.

VOCs and NO<sub>x</sub> are precursors to O<sub>3</sub>, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by the EPA as an attainment area for the 1-hour O<sub>3</sub> NAAQS standard). The health effects associated with O<sub>3</sub> are generally associated with reduced lung function. The contribution of VOCs and NO<sub>x</sub> to regional ambient O<sub>3</sub> concentrations is the result of complex photochemistry. The increases in O<sub>3</sub> concentrations in the SDAB due to O<sub>3</sub> precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O<sub>3</sub> concentrations also depends on the time of year that the VOC emissions occur because exceedances of the O<sub>3</sub> CAAQS/NAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O<sub>3</sub> precursors is speculative due to the lack of quantitative methods to assess this impact.

Operation of the proposed project would not exceed the significance threshold for NO<sub>x</sub>; therefore, the proposed project would contribute minimally to regional O<sub>3</sub> concentrations and the associated health effects. However, due to exceedances in construction-generated emissions of VOC, the proposed project could result in potential health effects associated with VOCs.

In summary, because construction of the proposed project could result in exceedances of the significance thresholds for VOC, the potential health effects associated with criteria air pollutants, specifically O<sub>3</sub>, would be less than significant with mitigation incorporated. With implementation of MM-AQ-1, impacts would be reduced to a level of less than significant.

As emissions during operation would not exceed any significance threshold for criteria air pollutants, impacts during operation would be considered less than significant.

## Valley Fever Exposure

Valley Fever is not highly endemic to San Diego County, and within San Diego County, the incidence rate in the project area is below the County and statewide average. The proposed project would be required to comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Strategies the project would implement to comply with SDAPCD Rule 55 and control dust include watering two times per day and limiting speed on unpaved roads to 15 miles per hour.

Based on the low incidence rate of Coccidioidomycosis in San Diego County and the implementation of dust control strategies for the proposed project, it is not anticipated that earth-moving activities during construction of the project would result in exposure of nearby sensitive receptors to Valley Fever. Therefore, the project would have a less than significant impact with respect to Valley Fever exposure for sensitive receptors.

### ***Threshold No. 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

Odors would be generated from vehicle and equipment exhaust emissions during construction of the proposed project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and from architectural coatings. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (CARB 2005). The proposed project would not allow for any of these activities. Moreover, typical odors generated from operation of the proposed project residential land uses would primarily include vehicle exhaust generated by residents and through the periodic use of landscaping and maintenance equipment. Therefore, the proposed project would result in an odor impact that is less than significant.

## 3.2.5 Mitigation Measures

Mitigation Measure (MM) AQ-1 would be implemented to reduce VOC emissions generated during construction of the proposed project (Impact AQ-1).

MM-AQ-1 Architectural Coatings. The project shall use low volatile organic compound (VOC) architectural coatings for interior application that do not exceed VOC content of 10 grams per liter, for exterior application that do not exceed VOC content of 50 grams per liter, and for parking application do not exceed VOC content of 100 grams per liter.

### 3.2.6 Conclusion

The proposed project would change the allowable land use and zoning designation of Industrial (I) to allow for residential uses under a proposed Specific Plan Area. However, the project's proposed growth would be within the growth projections for the City, and, at a regional level, the proposed project is consistent with the underlying growth forecasts in the SIP and RAQS. Therefore, implementation of the proposed project would not conflict with the RAQS or SIP, and proposed development would be consistent with the anticipated growth in the region.

Implementation of the proposed project also would not violate any air quality standards or contribute substantially to an existing or projected air quality violation during construction with mitigation or operation. Additionally, the proposed project would not expose a substantial number of people to objectionable odors.

As construction of the proposed project would likely exceed the significance threshold for VOC prior to mitigation, the potential for the proposed project to result in a cumulatively considerable net increase of any criteria pollutant (i.e., O<sub>3</sub>) for which the project region is nonattainment under an applicable national or California ambient air quality standard is potentially significant. Because construction could result in exceedance of the VOC significance threshold, the potential health effects associated with exposure of sensitive receptors to criteria air pollutants, specifically O<sub>3</sub>, were also considered potentially significant.

However, with implementation of mitigation measure MM-AQ-1, VOC emissions generated during construction of the proposed project would be reduced to a less-than-significant level. Specifically, as shown in Table 3.2-11, daily construction emissions would not exceed the significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> with mitigation incorporated. Therefore, the potential for the project to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or California ambient air quality standard, and health effects of criteria air pollutants, would be reduced to a less than significant impact with mitigation.

**Table 3.2-11. Estimated Maximum Daily Construction Emissions - Mitigated**

| Year                           | VOC            | NO <sub>x</sub> | CO           | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|--------------------------------|----------------|-----------------|--------------|-----------------|------------------|-------------------|
|                                | Pounds per Day |                 |              |                 |                  |                   |
| 2023                           | 3.39           | 34.73           | 29.46        | 0.08            | 10.29            | 5.76              |
| 2024                           | 61.80          | 19.15           | 28.57        | 0.08            | 5.35             | 1.88              |
| <b>Maximum Daily Emissions</b> | <b>61.80</b>   | <b>34.73</b>    | <b>29.46</b> | <b>0.08</b>     | <b>10.29</b>     | <b>5.76</b>       |
| <i>Emission Threshold</i>      | 75             | 250             | 550          | 250             | 100              | 55                |
| <b>Threshold Exceeded?</b>     | <b>No</b>      | <b>No</b>       | <b>No</b>    | <b>No</b>       | <b>No</b>        | <b>No</b>         |

**Source:** Appendix B.

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns.

See Appendix A of Appendix B to this EIR for output files and modeling details.

The values shown are the maximum summer or winter daily emissions results from CalEEMod and provided in Appendix A of Appendix B to this EIR. The maximum emissions assume compliance with SDAPCD Rule 55, Fugitive Dust Control and implementation of MM-AQ-1, use of low-VOC architectural coatings.

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### 3.3 Biological Resources

This section describes the existing biological resources of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. This section is based on the Draft Biological Resources Technical Report (BTR) prepared by HELIX Environmental Planning Inc. (HELIX) in January 2023, which is included as Appendix C to this environmental impact report (EIR).

Table 3.3-1 summarizes the project- and cumulative-level biological resource impacts, by threshold.

**Table 3.3-1. Biological Resources Summary of Impacts**

| Threshold of Significance   | Project Impact                        | Project Cumulative Impact             | Significance Determination            |
|---|---------------------------------------|---------------------------------------|---------------------------------------|
| No. 1 - Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. | Less than Significant with Mitigation | Less than Significant with Mitigation | Less than Significant with Mitigation |
| No. 2 - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.   | Less than Significant with Mitigation | Less than Significant with Mitigation | Less than Significant with Mitigation |
| No. 3 - Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.   | Less than Significant with Mitigation | Less than Significant with Mitigation | Less than Significant with Mitigation |
| No. 4 - Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.   | No impacts                            | No impacts                            | No impacts                            |
| No. 5 - Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.  | No impacts                            | No impacts                            | No impacts                            |
| No. 6 - Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.   | Less than Significant with Mitigation | Less than Significant with Mitigation | Less than Significant with Mitigation |

### 3.3.1 Existing Conditions

The approximately 33.2-acre project site consists of primarily undeveloped land in the western portion of San Marcos. Although undeveloped, the project site reflects a history of disturbance. Vegetation is disturbed by an abundance of invasive and weedy plant species. Unpaved roads crossing the project site are visible on historic aerials since 1978 through today (Historical Aerials 2021). Additionally, the project site has been subject to ongoing unauthorized routine dumping of trash, potentially hazardous/toxic materials, and other debris, which are most evident by dump piles in the northwest, southeast, and northwest portions of the project site. Trash and debris are scattered throughout the project site. Furthermore, based on the prevalent tire tracks and road ruts across the project site, most of the site seems to be frequently used for off-highway vehicle recreation. Based on aerial imagery and recent biological surveys of the project site since 2018, the trash/debris dumping and the off-highway vehicle disturbances on site have increased and impacted sensitive biological resources on site, such as vernal pools, sensitive vegetation, and rare plants and animals including federally listed endangered species. Additionally, during the biological surveys conducted in 2021 and 2022, potential evidence of plant harvesting/poaching (i.e., hand digging tools and small patches of shallow excavations within sensitive plant species locations) in several areas of the site were observed. Due to the relatively high level of continuous anthropogenic disturbances of the project site via trash dumping and off-highway vehicle recreation, the potential sensitive plant harvesting/poaching, unsanctioned community gatherings for 4th of July Holiday celebration parties and fireworks spectating, as well as the abundance of non-native invasive species, it is likely such disturbances would continue in the future and substantially result in ongoing degradation of the biological resources on site (Appendix C).

The project site is immediately adjacent to roadways. The site is located at the northwest corner of South Las Posas Road and Linda Vista Drive. La Mirada Road abuts the site's northern boundary, while Pacific Street abuts the property's western boundary. Existing development occurs on all sides of the site. The Grand Plaza shopping center is located directly across South Las Posas Road. Light industrial uses are adjacent to the site's northern, southern, and western boundary, and Bradley park is located across from the site's southwestern corner.

The project site is relatively flat, ranging in elevation from approximately 527 feet above mean sea level in the southeast portion of the project area to 551 feet in the northwest corner of the project site. Three soil types have been mapped on the project site: Las Flores loamy fine sand, 2% to 9% slopes; Placentia sandy loam, 2% to 9% slopes; and Placentia sandy loam thick surface, 0% to 2% slopes (Appendix C).

#### Planning Context

The biological study area is generally located within the planning boundaries of the adopted San Diego Multiple Habitat Conservation Program (MHCP) Plan (Appendix C), and specifically within the Draft San Marcos Subarea Plan area. The City of San Marcos (City) Draft Subarea Plan has not been completed, approved, or adopted (City of San Marcos 2001). Within the MHCP, the project site is identified as "natural habitats outside of Biological Core and Linkage Area (BCLA)," and is recognized as a "Major Amendment Area." Major amendment lands are privately held properties with sensitive resources that are not included in the Subarea plan. Prior to the inclusion of these lands in the Subarea Plan, additional California Environmental Quality Act (CEQA) review is required to determine compatibility with the goals and policies of the Subarea Plan with any proposed development on those lands (Appendix C). The project site is located within the Vernal Pool Major Amendment Area in the City's Draft Subarea Plan (refer to Figure 4 of Appendix C). While the City's Draft Subarea Plan has not been approved or adopted and is advisory, the City considers the plan a policy document to guide development in the City.

The project site is located within critical habitat designated by U.S. Fish and Wildlife Service (USFWS) for the federally listed endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*), federally listed threatened spreading navarretia (*Navarretia fossalis*), and federally listed threatened thread-leaved brodiaea (*Brodiaea filifolia*). The Project site includes the largest remaining vernal pool complex in the City that supports the San Diego fairy shrimp, San Diego button celery, and spreading navarretia (*Navarretia fossalis*). The Project site also includes the largest remaining non-conserved native grassland in the City and supports one of the largest known populations of the state endangered thread-leaved brodiaea, as well as the non-listed but still sensitive Orcutt's brodiaea.

#### Plants

A total of 73 plant species were observed within the project site during the biological surveys, of which 31 (42%) are non-native species. Please refer to Appendix C (Appendix A, Plant Species Observed) for a list and details regarding the 73 plant species observed within the project site.

#### Animals

A total of 17 animal species were observed/detected within the project site during the biological surveys, including four invertebrates, one reptile, ten bird species, and two mammal species. Please refer to Appendix C (Appendix B, Animal Species Observed or Detected) for a list and details regarding the 17 animal species observed/detected within the project site.

#### Special-Status/Regulated Resources

##### Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitat types are defined as land areas that support unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines. Additionally, sensitive vegetation communities/habitat types are those identified as habitats requiring mitigation by the MHCP.

The rarity of natural communities was also evaluated using the NatureServe's Heritage Methodology (Appendix C) in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities are assigned an overall rank of 1 through 5, with 1 being considered very rare and threatened and 5 being considered demonstrably secure. Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by the California Department of Fish and Wildlife (CDFW) (Appendix C).

Three sensitive vegetation communities/habitat types were mapped on the project site: vernal pool, Diegan coastal sage scrub (including disturbed and baccharis-dominated), and grassland (including mixed, native, and non-native grassland). Remaining areas on the project site include disturbed habitat and urban/developed, which are not considered sensitive.

##### Special-Status Plant Species

Special-status plant species have been afforded special status and/or recognition by USFWS and/or CDFW and may also be included in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. Sensitive species are those considered unusual or limited in that they are (1) only found in the region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region.

Special-Status Plant Species Observed

Six special-status plant species were observed on the project site during biological surveys conducted in 2020, 2021, and 2022 (see Table 3.3-2). Locations of special status plant species on the project site can be viewed on Figure 3.3-1, Special-Status Plant Species, of this EIR.

**Table 3.3-2. Special-Status Plant Species Observed on the Project Site**

| Plant Species  | Status  | Distribution   | Habitat(s)  | Presence in the Project Area  |
|--|---|--|---|---|
| Thread-leaved brodiaea ( <i>Brodiaea filifolia</i> ) | Federally listed threatened. State listed endangered. CNPS Rare Plant Rank 1B.1. Proposed as a Narrow Endemic under the Multiple Habitat Conservation Plan (MHCP). A critical population of this species is identified on the project site by the MHCP. | Interior valley regions of San Diego, Riverside, Orange, and Los Angeles counties. | This perennial bulbiferous herb typically blooms sometime between March and June and is often associated with vernal pools. It prefers clay soils and is known from habitats including valley grassland, foothill woodland, coastal sage scrub, and chaparral.                | Approximately 177,723 individuals (occupying approximately 8.53 acres plus isolated/distant clusters of individuals) were cumulatively mapped throughout the project site during plant surveys conducted in 2020, 2021, and 2022. |
| Orcutt's brodiaea ( <i>Brodiaea orcuttii</i> )       | CNPS Rare Plant Rank 1B.1.A. A critical population of this species is identified on the project site by the MHCP.   | Riverside and San Bernardino counties south to Baja California, Mexico.            | This perennial bulbiferous herb typically blooms sometime between May and July and occurs within closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools. This species prefers mesic or clay soils. | Approximately 127,517 individuals (occupying approximately 6.10 acres plus isolated/distant clusters of individuals) were cumulatively mapped throughout the project site during plant surveys conducted in 2020, 2021, and 2022. |



**Table 3.3-2. Special-Status Plant Species Observed on the Project Site**

| Plant Species  | Status   | Distribution   | Habitat(s)  | Presence in the Project Area   |
|--|--|--|---|--|
| Small-flowered morning-glory ( <i>Convolvulus simulans</i> )                 | CNPS Rare Plant Rank 4.2.  | Scattered locations from the foothills to the coast in southern California and Baja California, Mexico. Species rare in southern California. | This annual herb typically blooms sometime between March and July and can be found on clay and serpentinite seeps in openings within chaparral, coastal scrub, and native grassland.                          | Three individuals of this species were detected during plant surveys conducted in 2020 through 2022 and occur in the southwestern corner of the project site.  |
| San Diego button-celery ( <i>Eryngium aristulatum</i> var. <i>parishii</i> ) | Federally listed endangered. State listed endangered. CNPS Rare Plant Rank 1B.1. Proposed as a Narrow Endemic under the MHCP. A critical population of this species is identified on the project site by the MHCP. | San Diego and Riverside counties; Baja California, Mexico  | This perennial herb typically blooms sometime between April and August and occurs in vernal pools or mima mound areas with vernal moist conditions, and in mesic areas on coastal scrub and native grassland. | Approximately 160 individuals were cumulatively mapped during plant surveys in 2020, 2021, and 2022. This species was found within four vernal pools located in the northeast, east, and west portions of the project site. during 2020 surveys. |
| Chaparral rein orchid ( <i>Piperia cooperi</i> )                             | CNPS Rare Plant Rank 4.2.  | San Diego and Los Angeles counties, Santa Cruz Island, Santa Catalina Island; Baja California, Mexico  | This perennial herb typically grows on dry sites within grasslands, chaparral, and cismontane woodland.   | One individual of this species was found in the northeastern portion of the site during plant surveys conducted in 2020 through 2022.  |

**Table 3.3-2. Special-Status Plant Species Observed on the Project Site**

| Plant Species  | Status                   | Distribution                              | Habitat(s)   | Presence in the Project Area   |
|--|--------------------------|---|--|--|
| Graceful tarplant ( <i>Holocarpha virgata</i> ssp. <i>elongata</i> ) | CNPS Rare Plant Rank 4.2 | San Diego, Orange, and Riverside counties | This annual herb typically blooms sometime between May and November and occurs in grasslands, coastal scrub, chaparral, and cismontane woodland. | Approximately 28,780 individuals were cumulatively mapped throughout the project site during plant surveys conducted in 2020 through 2022. |

Source: Appendix C.

Notes: CNPS = California Native Plant Society; MHCP = Multiple Habitat Conservation Program.

### Special Status Plant Species with Potential to Occur

A search of CNPS and California Natural Diversity Database records (2-mile radius from the project site), along with Calflora data, was used to develop a matrix of sensitive plant species that may have potential to occur on the project site due to the presence of suitable habitat (e.g., vegetation communities, soils, elevation, and geographic range, life form/blooming period, etc.).

In addition to the six rare plants detected on site during biological surveys, three additional special status plant species have been recorded on the project site by others: San Diego thornmint (*Acanthomintha ilicifolia*), spreading navarretia (*Navarretia fossalis*), and small flowered microseris (*Microseris douglasii* ssp. *Platycarpha*). San Diego thornmint and spreading navarretia are reported to occur as critical populations on the project site; however, they have not been detected other than historical observations. These three species were not observed within the project site during biological surveys in 2018, 2020, 2021, or 2022. Because surveys for rare plants conducted for the project were performed during the blooming periods for these plant species, as well as in a year (2020) yielding above average rainfall, these three plant species would have been observed if present on site. Although annual rainfall in 2021 and 2022 was slightly below average according to the Los Angeles Almanac database, these three plant species would have been detected on site, especially in 2020, if present. Further, even though rainfall in 2021 and 2022 was slightly below average, there was an increase in numbers of rare plants detected compared to the above average rainfall year in 2020. Thus, rare plant surveys conducted between 2020 and 2022 are considered an accurate estimate of rare plant distribution and population size on site. Because there are only records of these three other sensitive plants occurring on site, and they have not been reported as occurring since 2009, the potential for these plants to occur on the project site was determined to be low (Appendix C). The remaining 35 special status plant species evaluated are not expected to occur or are presumed to be absent from project site.

### Special Status Animal Species

Special status animal species include those that have been afforded special status and/or recognition by USFWS and/or CDFW. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

Special Status Animal Species Observed or Otherwise Detected

One special status animal species was detected in the project area during the biological surveys in 2020. This species is discussed below in Table 3.3-3, and occupied locations are presented on Figure 3.3-2, Special-Status Wildlife Species. No other special status animals have been detected during surveys for the project.

**Table 3.3-3. Special-Status Animal Species Observed on the Project Site**

| Animal Name  | Status   | Distribution  | Habitat(s)   | Presence in the Project Site  |
|--|--|---|--|---|
| San Diego fairy shrimp<br>( <i>Branchinecta sandiegonensis</i> ) | Federally listed endangered. Proposed as a Narrow Endemic under the MHCP. A critical population of this species is identified on the project site in the MHCP. | Southern California from coastal Orange County to San Diego County. | This fairy shrimp is restricted to vernal pools and other ephemeral basins. It is found in seasonally astatic pools that occur in tectonic swales or earth slump basins and other areas of shallow, standing water often in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral. | This species was observed on the project site in multiple locations (i.e., vernal pools and road ruts) during focused USFWS protocol surveys in 2020. |

Source: Appendix C.

Special Status Animal Species with Potential to Occur

A search of California Natural Diversity Database and USFWS records within a 2-mile radius from the project site was used to develop a matrix of sensitive animal species that may have potential to occur on site due to the presence of suitable habitat (e.g., vegetation communities, soils, elevation, geographic range, etc.).

In addition to the one sensitive animal detected on site during 2020 focused surveys, one other special status animal species has been historically observed and recorded on the project site by others: burrowing owl (*Athene cunicularia*), which is a species of special concern. Although this species was not observed within the project site during biological surveys in 2018 or 2020, including focused surveys, this species is considered to have low potential to occur on the project site based on historic observations and the presence of suitable habitat. Four other special status animal species were not detected during project biological surveys, and were not recorded in prior observations, but are considered to have low potential to occur on the project site based on the presence of suitable habitat: Orange-throated whiptail (*Aspidoscelis hyperythra*), Coronado skink (*Plestiodon skiltonianus interparietalis*), Coastal California Gnatcatcher (*Polioptila californica californica*), and Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). Burrowing owl and Northwestern San Diego pocket mouse are species of special concern, orange-throated whiptail and Coronado skink are watch-list Species, and coastal California gnatcatcher is federally listed threatened and species of species concern. No other special status animal species evaluated are expected to occur on the project site due to lack of suitable habitat (Appendix C).

Nesting Birds

Habitats within the project site could provide suitable nesting habitat for bird species, including raptors, known to occur in the region.

## Vegetation Communities

Seven vegetation communities or habitat types occur within the project site and within the biological study area: vernal pools, Diegan coastal sage scrub (including disturbed and baccharis-dominated), native grassland, non-native grassland, disturbed habitat, and developed (see Table 3.3-4). Vegetation community locations on the project site can be seen on Figure 3.3-3, Vegetation Communities.

**Table 3.3-4. Existing Vegetation/Habitat Types<sup>1</sup>**

| Vegetation Community/Habitat Type                     | MHCP Habitat Group | Area (acres) | Off-Site Improvements (acres) |
|---|--------------------|--------------|-------------------------------|
| <b>Wetland</b>  |                    |              |                               |
| Vernal Pool (44000)                                   | A                  | 0.44         | —                             |
| <i>Wetland Subtotal</i>                               | —                  | 0.44         | —                             |
| <b>Upland</b>   |                    |              |                               |
| Native Grassland (42100)                              | B                  | 13.61        | 0.01                          |
| Diegan Coastal Sage Scrub-disturbed (32500)           | C                  | 0.71         | 0.01                          |
| Diegan Coastal Sage Scrub-Baccharis-dominated (32530) | C                  | 0.36         | 0.01                          |
| Grassland – mixed and disturbed (40000)               | E                  | 13.93        | 0.35                          |
| Non-native Grassland (42200)                          | E                  | 3.52         | 0.22                          |
| Disturbed Habitat (11300)                             | F                  | 0.58         | 0.06                          |
| Developed (12000)                                     | F                  | 0.07         | 1.22                          |
| <i>Upland Subtotal</i>                                | —                  | 32.78        | 1.88                          |
| <b>Total</b>  | —                  | <b>33.22</b> | <b>1.88</b>                   |

Source: Appendix C.

**Note:**

<sup>1</sup> Acres rounded to the nearest 0.01 acre.

### Vernal Pools (44000)

There are 0.44 acres of vernal pools on the project site. Vernal pools are seasonally flooded depressions that support a highly specialized plant habitat and unique flora and fauna adapted to living in extreme dry and wet conditions. Vernal pools are associated with two important physical conditions: a subsurface hardpan or claypan that inhibits the downward percolation of water and a topography characterized by a series of low hummocks called mima mounds and low depressions (the vernal pools) that prevents above ground water runoff. As the result of these two physical conditions, water collects in these depressions during the rainy season. As the rainy season ends and the dry season begins, the water that has collected in these vernal pools is gradually evaporated. As water evaporates from these pools a gradient of low soil water availability to high soil water availability is created from the periphery of the pool margins to the center of the pool. The chemical composition of the remaining pool water becomes more concentrated as the pool water is evaporated creating a gradient of low ion concentration at the pool periphery to high ion concentration at the pool center. A temporal succession of plant species will occur at the receding pool margins, depending upon the physical and chemical microenvironmental characteristics of the pool. Vernal pools in a wet year will have a high proportion of native species that are endemic to this habitat. During these years, the exotic, ruderal species, characteristic of the non-native grasslands that occur on the surrounding mima mounds will not invade these pools unable to tolerate the physiological conditions of the ephemeral pool. In

years of scarce rainfall that is insufficient to saturate the soil and create a surface pool, the native endemic flora will not germinate and pools are often invaded by the exotic species. Vernal pools are typically identified and separated from other wetlands by the presence of “vernal pool indicator species.”

Within the project site, vernal pool indicator species were detected at many of the depressions. Typical species found in the project site within areas mapped as vernal pools include San Diego button-celery, dwarf woolly-heads (*Psilocarphus brevissimus* var. *brevissimus*), American pillwort (*Pilularia americana*), flowering-quillwort (*Triglochin scilloides*), annual hairgrass (*Deschampsia danthonioides*), pale spike-rush (*Eleocharis macrostachya*), toad rush (*Juncus bufonius*), Mexican rush (*Juncus mexicanus*), hyssop loosestrife (*Lythrum hyssopifolia*), and curly dock (*Rumex crispus*).

In addition to vernal pools, several other depressional features were identified on site that did not support vernal pool indicator plants and were mapped within grassland vegetation and disturbed habitat; such features were considered “road ruts” or “other depressions.” Road ruts represent features within or alongside dirt paths that display evidence of vehicular tire tracks, and features labeled as other depressions are those not associated/created by vehicle tracks, are not within roadways, and represent naturally occurring depressional low spots in the site topography. In total, there were 20 vernal pools, 38 road ruts, and 41 other depressions mapped on site during biological surveys conducted for the project (Appendix C).

#### Diegan Coastal Sage Scrub (Including Disturbed and Baccharis-Dominated; 32500)

There are approximately 1.07 acres of Diegan coastal sage scrub on the project site. Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub but has a higher proportion (above 25%) of non-native species. Within the project site, Disturbed Diegan coastal sage scrub contains California buckwheat and California sagebrush, a variety of native herbs, non-native grasses, and herbaceous weeds. Baccharis dominated Diegan coastal sage scrub is dominated by coyote brush (*Baccharis pilularis*), with lesser amounts of other typical coastal sage scrub species. This community is also located within the off-site improvement area along La Mirada Drive north of the project (Appendix C).

#### Grassland (40000)

There are approximately 13.93 acres of grassland (mixed and disturbed) on the project site. Grasslands primarily consist of annual grasses and other annual herbaceous species, generally mid-height up to 3 feet tall. Grasslands in southern California occur in a variety of forms such, but not limited to, mixed grassland, valley needlegrass, saltgrass, non-native, and broadleaf or artichoke thistle dominated. Percent plant cover within grasslands is typically high (at least 75%), and the composition of native versus non-native species varies year by year (less than 20% native to greater than 90% native) depending on site disturbances, annual rainfall, and growing season conditions. Based on surveys in 2019, 2021, and 2022 of the project site (including immediately adjacent off-site improvement areas), three subtypes or forms of grassland were identified and recorded: mixed disturbed grassland, native grassland, and non-native grassland. Areas found on site to be an intermixed mosaic of both native and non-native herbaceous species were mapped as mixed disturbed grassland. The species composition and plant density of mixed grassland mapped varies throughout/across the site, seems to change throughout the growing season, varies from year to year, and ultimately does not clearly reflect a consistent dominance of either native or non-native species. Below are descriptions of the other two grassland types observed on site: native grassland and non-native grassland.

#### Native Grassland (42100)

There are approximately 13.61 acres of native grassland on the project site. Native grassland is typically a community dominated by perennial bunchgrasses such as purple needlegrass (*Stipa pulchra*) or other native grass species. Native and non-native annuals tend to occur between the perennials, often exceeding the bunchgrass in cover. Native grasslands generally occur on fine-textured soils that exclude the growth of annual exotic grass species. The percentage of native species at any one time can be quite low (Appendix C). Areas on site found to be dominated with dense patches of purple needlegrass were mapped as native grassland. Additionally, native grasslands on site reflect areas found during the focused rare plant surveys to be dominated by Orcutt's brodiaea, thread-leaved brodiaea, or chaparral brodiaea were mapped as native grassland. Further, areas of the site supporting at least 20 percent native plant cover were also mapped as native grassland. Such areas are primarily comprised of common golden stars (*Bloomeria crocea*) and California blue-eyed grass (*Sisyrinchium bellum*); however, these areas also supported a high percentage of non-native annual species, including wild oats (*Avena* sp.), foxtail chess (*Bromus madritensis*), soft chess (*Bromus hordeaceus*), and Bermuda grass (*Cynodon dactylon*) (Appendix C).

#### Non-Native Grassland (42200)

There are 3.52 acres of non-native grassland on the project site. Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs (wildflowers). This grassland typically occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include wildoats, red brome (*Bromus rubens*), ripgut (*B. diandrus*), ryegrass (*Festuca* sp.), and mustard (*Brassica* sp.). In accordance with the MHCP definition, this vegetation community was mapped in areas supporting at least 30% non-native plant cover. On-site non-native grassland primarily includes wild oats, foxtail chess, soft chess, Bermuda grass, rattail sixweeks grass (*Festuca myuros*), and purple false brome (*Brachypodium distachyon*) (Appendix C).

#### Disturbed Habitat (11300)

There are 0.58 acres of disturbed habitat on the project site. Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat. An unpaved road/trail bisects the site. Additionally, the northeast corner of the project site is characterized by bare ground and sparse annual non-native weeds. Disturbed habitat is also mapped within the off-site improvement areas northeast and southwest of the site (Appendix C).

#### Developed Land (12000)

There are 0.07 acres of developed land on the project site. Urban/developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation. Urban/developed land in the project site consists of Linda Vista Drive in the southeast corner of the site and utilities in the northeast corner of the site. Additional urban/developed land is immediately adjacent to the project site associated with the off-site improvements within La Mirada Drive, South Las Posas Road, Linda Vista Drive, and South Pacific Street (Appendix C).

### Jurisdictional Aquatic Resources

Potentially jurisdictional resources occur in the project site, consisting of waters of the U.S./State (including wetlands), isolated waters of the State, and streambed with riparian vegetation. These resources are represented by drainages located in the southeast corner of the project site and vernal pools and other seasonally ponded features scattered throughout the site. There are no potentially jurisdictional resources within the off-site improvement area of the project. A summary, in acreages, of these jurisdictional resources is provided below in Table 3.3-5. Figure 3.3-4, Potentially Jurisdictional Wetlands and Waters, shows the locations of jurisdictional resources.

**Table 3.3-5. Potentially Jurisdictional Resources**

| Potential Jurisdictional Resources | Potential Resource Agency Jurisdiction |             |             | Acres       |
|------------------------------------|--|-------------|-------------|-------------|
|                                    | USACE/RWQCB/CDFW                       | USACE/RWQCB | RWQCB       |             |
| <b>Wetlands</b>                    |  |             |             |             |
| Vernal Pools                       | —                                      | 0.44        | —           | 0.44        |
| Drainage 1 (Swale)                 | 0.05                                   | —           | —           | 0.05        |
| <i>Subtotal</i>                    | 0.05                                   | 0.44        | —           | 0.49        |
| <b>Non-Wetland</b>                 |  |             |             |             |
| Drainage 2 (Streambed)             | <0.01                                  | —           | —           | <0.01       |
| Other Seasonally Ponded Features   | —                                      | —           | 0.02        | 0.02        |
| <i>Subtotal</i>                    | <0.01                                  | —           | 0.02        | 0.02        |
| <b>Total</b>                       | <b>0.05</b>                            | <b>0.44</b> | <b>0.02</b> | <b>0.51</b> |

Source: Appendix C.

Notes: USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

#### Wetland Waters of the U.S./State

Potential wetland waters of the U.S. identified within the project site could be subject to regulation by USACE and include the vernal pools and drainage 1. These wetland waters of the U.S. also represent waters of the State subject to Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the Clean Water Act (CWA).

#### Non-Wetland Waters of the U.S./State

The second drainage (drainage 2) channel in the in the southeast corner of the project site was identified as potential non-wetland waters of the U.S. that could be subject to regulation by the U.S. Army Corps of Engineers (USACE). The waters of the U.S. also represent waters of the State subject to RWQCB jurisdiction pursuant to Section 401 of the CWA.

#### Waters of the State

The “other ponded features” (i.e., road ruts and other depressions) detected onsite were surveyed for fairy shrimp and rare plants. These features are considered potentially jurisdictional as isolated surface waters of the State subject to RWQCB jurisdiction, exclusively, pursuant to Porter-Cologne (see Section 3.3.3, Regulatory Setting). Potential habitat considered waters of the U.S. that are determined by USACE, through formal application, to be not under their jurisdiction would also be considered isolated waters of the State subject to RWQCB regulation under Porter-Cologne.

#### Streambed and Riparian Habitat

Potential riparian and streambed habitat under the jurisdiction of CDFW within the project site consists of the two drainages in the southeast corner of the project site. These features could be subject to the jurisdiction of CDFW pursuant to Sections 1600-1603 of the California Fish and Game Code (CFGC).

#### Wildlife Corridors/Core Wildlife Areas

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are made up of a fragmented archipelago arrangement of habitat over a linear distance.

Important corridors and linkages have been identified on a local and regional scale throughout the Draft North County MHCP (AMEC Earth & Environmental et al. 2003) and adopted City of San Marcos General Plan (City of San Marcos 2012). The planning objectives of most corridors and linkages in western San Diego County include establishing a connection between the northern and southern regional populations of the coastal California gnatcatcher, in addition to facilitating movement and connectivity of habitat for large mammals and riparian bird species.

The project site is not identified as a wildlife corridor in the City of San Marcos General Plan (City of San Marcos 2012). Due to the high number of special status species present within the project site, the Draft North County MHCP incorporates the project site into the MHCP Biological Core and Linkage Area, and the project site is identified as a major amendment area targeted for conservation. The project site is not identified as a preserve, nor are there preserve lands located within 2,000 feet of project site. The project site is not contiguous with any undeveloped land. Given the barrier posed by surrounding development, the site is not expected to serve as a regional wildlife corridor or substantial habitat linkage that would be used by large mammals, riparian birds, or migratory birds. The drainage features on the project site immediately flow subsurface downstream of the project site for approximately 625 feet before re-emerging south of Linda Vista Drive and Grainger Industrial Supply. Thus, the drainage features are unlikely to facilitate wildlife movement outside of the project site.

Thus, given the project site location immediately adjacent to and surrounded by existing roadways and development within an urban setting, the project site is not considered to serve as a wildlife corridor or habitat linkage, either locally or regionally.

## 3.3.2 Methodology

### Literature Review

The biological study area for the project includes the project site and surrounding areas within 50 feet. Prior to conducting the field surveys, HELIX performed a review of relevant maps, databases, and literature pertaining to biological resources known to occur within the project vicinity. HELIX also reviewed a previous biological survey information completed for the project site by others. Recent and historical aerial imagery, topographic maps, soils maps, and other maps of the project site and vicinity were reviewed to obtain information on the environmental setting (Appendix C).



In addition, a query of sensitive species and habitats within a 2-mile radius of the project site was conducted using the USFWS species records, CDFW records, California Natural Diversity Database, Calflora database, SanBIOS, and CNPS Inventory of Rare and Endangered Plants. A search was conducted from the CNPS Electronic Inventory and the USFWS National Wetlands Inventory. Recorded locations of species, habitat types, and other resources were mapped and overlain onto aerial imagery using Geographic Information Systems (Appendix C).

## Biological Surveys

### General Biological Surveys

HELIX biologist conducted an initial general biological survey of the project site on July 24, 2018. HELIX biologists conducted an additional biological assessment of the project site on April 22, 2020, to verify the 2018 resources mapping remained accurate, and to refine, where appropriate. HELIX biologist mapped vernal pool watersheds directly in the field with a GPS unit in September 2020. Vegetation communities were classified and mapped. Survey mapping utilized a 1-inch = 50-foot scale aerial map with an overlay of the project site and previous resource mapping. A GPS was used during the survey to record the limits of vegetation and other resources on site. Another survey of the project site was conducted by HELIX biologist on March 26, 2021, to review the existing site conditions, evaluate the mapped vernal pools, assess the status of annual plants, and verify accuracy of the biological resources mapped in 2020. HELIX biologist reviewed the status of brodiaea mapping on March 18, 2021. Additionally, multiple surveys were conducted in 2022 by HELIX biologists to assess the vernal pools, verify vegetation and site conditions, assess grasslands, document and count special-status plants on site, and to evaluate potential species and habitat mitigation (translocation, creation, restoration, enhancement, and preservation) areas on site. Specifically, in 2022, site visits were conducted on February 25, March 1, March 29, March 31, April 6, May 9, May 10, May 13, July 19, August 4, and August 5.

Vegetation communities were mapped by HELIX to one-hundredth of an acre (0.01 acres). A list of all plant and animal species observed or detected within the project site was prepared. Plant species were identified in the field or later in the laboratory with the aid of voucher specimens. Animals were identified in the field by direct visual observation with the aid of binoculars or indirectly by detection of calls, tracks, burrows, or scat.

### Jurisdictional Delineation

During the general biological survey on July 24, 2018, HELIX biologist preliminarily identified and mapped jurisdictional aquatic resources potentially subject to UUSACE jurisdiction pursuant to Section 404 of the CWA, RWQCB jurisdiction pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act (Porter-Cologne), and streambed and riparian habitat potentially subject to CDFW jurisdiction pursuant to Section 1600 et seq. of the CFGC. Additionally, HELIX biologists Jason Kurnow and Angelia Bottiani performed a formal wetland delineation of the project site on April 22, 2020. Potential aquatic resources evaluated within the project site included drainage features, swales, depressions, wetland vegetation, and areas where ponding was observed.

### Waters of the U.S. (USACE Jurisdiction)

Potential USACE-jurisdictional wetlands and waters of the U.S. were delineated in accordance with the Wetlands Delineation Manual (Appendix C), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008), and the Navigable Waters Protection Rule: 85 FR 22250 (Appendix C). The delineation was located within representative uplands and wetlands of the project site, and mapping of drainage features was performed in the field based on ordinary high-water mark and surface indications of hydrology. Five soil pits were

excavated and evaluated by HELIX in 2020. Areas are determined to be potential wetland waters of the U.S. if there is a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas are determined to be non-wetland waters of the U.S. if there is evidence of regular surface flow (i.e., perennial or intermittent) within an ordinary high-water mark, but the vegetation and/or soils criterion is not met, and the waters are immediately adjacent to wetlands or are hydrologically connected to downstream navigable waters.

No soil pits were dug in the vernal pools because hydrology and aquatic vegetation extents were evident during survey. Due to the soil profiles and conditions that support vernal pools, presence of hydric soils was assumed. Thus, pools found to support ponding and vernal pool aquatic indicator plant species were mapped as potential wetland waters of the U.S. In general, areas were determined to be potential wetland waters of the U.S. if there was a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas were determined to be non-wetland waters of the U.S. if there was evidence of regular surface flow within an ordinary high-water mark, but the vegetation criterion was not met.

#### Waters of the State (RWQCB Jurisdiction)

Potential RWQCB-jurisdictional areas were delineated in the same manner as potential waters of the U.S. All waters of the U.S. were considered waters of the State subject to RWQCB jurisdiction pursuant to CWA Section 401. Additionally, features that support aquatic resources (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology), but are isolated (i.e., lack downstream connectivity to traditional navigable waters of the U.S.) could be subject to regulation pursuant to the State Porter-Cologne Water Quality Control Act (Porter-Cologne) and would be identified as potential RWQCB-jurisdictional waters of the State.

#### Streambed and Riparian Habitat (CDFW Jurisdiction)

Potential CDFW-jurisdictional streambed and riparian habitat was determined based on the presence of riparian vegetation or regular surface flow within a definable bed and bank. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation” (14 CCR 1.72). Potential CDFW-jurisdictional unvegetated streambed encompasses the top-of-bank to top-of-bank width for the features within the project site. Riparian habitat is not defined in Title 14, but the section refers to vegetation and habitat associated with a stream.

#### Focused Species Surveys

##### Rare Plants

Spring surveys for rare plants were conducted across the project site by HELIX on May 11, 13, 15, 16, and 29, 2020 by HELIX biologists. The surveys consisted of systematically walking meandering transects throughout the entire project site. At each rare plant location, the plant was identified to species based on unique flower characteristics, the number of individuals was estimated, and the location was recorded with a GPS unit. Due to the relatively large area supporting Graceful tarplant (*Holocarpha virgata* ssp. *elongata*) on site, this species was also mapped and quantified using similar methods as thread-leaved and Orcutt's brodiaea species. Following the field surveys, GPS data was analyzed, and polygons were created where appropriate to demonstrate overall distribution. Clusters and individuals of rare plants that were isolated/distant from the polygons were left as single point locations. HELIX also searched for rare plants during the jurisdictional delineation discussed above and the focused animal surveys summarized below. Furthermore, to assess the status, locations, and quantities of rare

plants relative to the 2020 surveys, HELIX biologists surveyed the site for rare plants, using the methods from May 2020, on March 26 and May 18, 2021; as well as on May 9, 10, 13, July 19, and August 4 and 5, 2022. The results of these efforts have been compiled as part of the Biological Technical Report (Appendix C).

#### Burrowing Owl

Focused surveys for burrowing owl (*Athene cunicularia*) were conducted by HELIX in 2020 in accordance with current CDFW burrowing owl survey guidelines. Four site visits were made from March 30 through June 22, 2020, to survey potential burrowing owl habitat where it occurs on the project site and 500 feet beyond. Survey weather conditions, time of year, and time of day were appropriate for detecting burrowing owl (Appendix C).

#### Coastal California Gnatcatcher

Focused surveys for the coastal California gnatcatcher were conducted in 2020 in accordance with the Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997) by HELIX. The survey consisted of six site visits made from April 6 through May 11, 2020, and conducted during appropriate weather conditions and time of day for detecting coastal California gnatcatcher (Appendix C).

#### Fairy Shrimp

Protocol wet season and dry season focused surveys for San Diego fairy shrimp were conducted in 2020 in accordance with the Survey Guidelines for the Listed Large Branchiopods (USFWS 2017) by HELIX (Appendix C). Seven survey visits were conducted for the wet-season survey between March 22 and May 4, 2020, when all features on the project site were observed to be dry. During the survey, HELIX attempted to verify and identify all features previously sampled by others. It was determined that the surveys were conducted during appropriate timing to detect suitable fairy shrimp habitat and fairy shrimp on the project site (Appendix C).

### Survey Limitations

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the lists of species identified are not necessarily comprehensive accounts of all species that use the project site, as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those special-status species that have the potential to occur on the project site based on historic observation and the presence of potentially suitable habitat are addressed herein.

## 3.3.3 Regulatory Setting

### Federal

#### Federal Endangered Species Act

Administered by USFWS, the federal Endangered Species Act (ESA) of 1973 provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Under the ESA, “take” of listed animal and plant species in areas under federal jurisdiction is prohibited without obtaining a federal permit. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” and “harass” are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ behavioral patterns. Under ESA, USFWS may issue incidental take statements, which authorize the take of listed wildlife species provided such take does not jeopardize the continued existence of the species.

Sections 7 and 4(d) of the Federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7, administered by USFWS, describes a process of Federal interagency consultation for use when Federal actions may adversely affect listed species. A Section 7 Consultation (formal or informal) with USFWS is required when there is a nexus between a listed species' use of a site and a project is requesting a federal action, including funding. If the action may affect listed species, a biological assessment is required for any major construction activity. USFWS determines, through the biological assessment or other review, whether the action is likely to adversely affect a listed species and thereby require formal consultation. At the conclusion of formal consultation, USFWS will prepare a Biological Opinion. The Biological Opinion will state whether the Federal agency has insured that its action is not likely to jeopardize the continued existence of a listed species and/or result in the destruction or adverse modification of critical habitat. If avoidance cannot be achieved, incidental take can be authorized via the Biological Opinion, issued by USFWS, for non-marine related listed species issues. A Section 7 Consultation could be required if impacts to a federally listed species would occur and there is requested federal action.

If a project could directly or indirectly impact federally listed species and/or their critical habitat, and there is no federal action/nexus (e.g., permit, funding, ownership, etc.), the Federal Endangered Species Act requires the project proponent to consult with USFWS under Section 10. A consultation under Section 10 of the ESA requires submittal of an Incidental Take Permit (ITP) application and a Habitat Conservation Plan to USFWS for evaluation of proposed project impacts. If USFWS determines the project would have a "low effect" on listed, proposed, or candidate species and their habitats, and the project would have minor effects on other environmental resources, USFWS would complete the consultation process and issue an ITP. If a project is determined by USFWS to have a "moderate or high effect" on listed, proposed, or candidate species and their habitats, USFWS would require preparation of National Environmental Policy Act (NEPA) analysis prior to issuance of an ITP. The National Environmental Policy Act analysis would include additional evaluation of the project impacts in the form of an Environmental Assessment or an Environmental Impact Statement. A Section 10 Consultation could be required if impacts to a federally listed species would occur.

Identified by USFWS, critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat, so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the federal ESA, all federal agencies must consult with USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat.

#### Clean Water Act

The CWA is intended to restore and maintain the quality and biological integrity of the nation's waters. Section 402 of the CWA prohibits the discharge of pollutants to "waters of the United States" from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System Permit. The CWA, Section 402, requires a National Pollutant Discharge Elimination System Permit for the discharge of stormwater from municipal separate storm sewer systems serving urban areas with a population greater than 100,000, construction sites that disturb 1 acre or more, and industrial facilities. The RWQCB administers these permits with oversight provided by the State Water Resources Control Board and U.S. Environmental Protection Agency Region IX.

Section 404 of the CWA authorizes the Secretary of the Army, acting through USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites." CWA Section 502 further defines "navigable waters" as "waters of the United States, including territorial seas." Waters of the United States are broadly defined in the Code of Federal Regulations (CFR), Title 33, Section 328.3, Subdivision (a), to

include navigable waters; perennial and intermittent streams, lakes, rivers, and ponds; and wetlands, marshes, and wet meadows.

The limits of USACE's CWA Section 404 jurisdiction in non-tidal waters are defined by the ordinary high water mark, unless adjacent wetlands are present. The ordinary high water mark is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or presence of debris (33 CFR 328.3). As a result, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within or adjacent to waters of the United States, the lateral limits of USACE's jurisdiction extends beyond the ordinary high water mark to the outer edge of the wetland.

Section 401 of the CWA requires that an applicant for a federal license or permit to discharge into navigable waters provide the federal agency with a water quality certification declaring that the discharge would comply with water quality standard requirements of the CWA. USACE is prohibited from issuing a CWA permit until the applicant receives a CWA, Section 401, water quality certification or waiver from the RWQCB.

#### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed in 50 CFR 10.13. The regulatory definition of "migratory bird" is broad and includes any mutation or hybrid of a listed species and includes any part, egg, or nest of such bird (50 CFR 10.12). Migratory birds are not necessarily federally listed endangered or threatened birds under the ESA. The MBTA, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11). In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally January 15 through September 15). In addition, USFWS commonly places restrictions on disturbances allowed near active raptor nests.

#### State

##### California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (CEQA Guidelines), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

##### California Endangered Species Act

CDFW administers the California ESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the take of plant and animal species designated by the Fish and Game Commission as endangered or threatened in California. Under the California ESA, Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." California ESA, Section 2053, stipulates that state agencies may not approve projects that would "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species,

if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy.”

California ESA, Sections 2080 through 2085, address the taking of threatened, endangered, or candidate species by stating, “No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (California Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001).”

#### California Fish and Game Code

The CFGC provides specific protection and listing for several types of biological resources. Section 1600 of the CFGC requires a Streambed Alteration Agreement for any activity that would alter the flow, change, or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities.

If the project could result in adverse impacts to a state-listed species that is not also federally listed, Section 2081(b) of the CFGC provides a mechanism for CDFW to permit, on a project-specific basis, incidental take of species listed under the California ESA. Preparation and submittal of an ITP application with CDFW by the project proponent is required. The application must include project details, potential project impacts, an analysis of “jeopardy” for the continued existence of the impacted species, and species-specific mitigation and avoidance measures that would fully mitigate for the project impacts.

Pursuant to CFGC Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFGC Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

#### Porter-Cologne Water Quality Control Act

This statute regulates surface waters and wetlands within the State and is governed by RWQCB. Features that support aquatic resources (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology), but are isolated (i.e., lack downstream connectivity to waters of the U.S.) could be subject to regulation pursuant to the State Porter-Cologne Water Quality Control Act (Porter-Cologne). Impacts to isolated wetlands and/or waters of the State require a Waste Discharge Requirement Permit from the RWQCB.

#### Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species. It began under the state's NCCP Act of 1991, legislation broader in its orientation and objectives than the

California ESA or federal ESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The NCCP Act of 1991 and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

This voluntary program allows the state to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species, and the areas that may be less important. These NCCP plans may become the basis for a state permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal Habitat Conservation Plan process to provide take permits for state and federal listed species. Under the NCCP, local governments, such as the County, can take the lead in developing these NCCP plans and become the recipients of state and federal take permits.

## Local

### City of San Marcos General Plan

The Conservation and Open Space Element of the City's General Plan contains several policies pertaining to the protection of biological resources (City of San Marcos 2012). The following goals and policies apply to the project:

**Goal COS-1:** Identify, protect, and enhance significant ecological and biological resources within San Marcos and its adaptive Sphere of Influence.

**Policy COS-1.1:** Support the protection of biological resources through the establishment, restoration, and conservation of high-quality habitat areas.

**Policy COS-1.2:** Ensure that new development, including Capital Improvement Projects, maintain the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats.

**Policy COS-1.3:** Continue to work with other federal, State, regional, and local agencies to implement, SANDAG's MHCP.

**Goal COS-2:** The City is committed to conserving, protecting, and maintaining open space, agricultural, and limited resources for future generations. By working with property owners, local organizations, and state and federal agencies, the City can limit the conversion of resource lands to urban uses.

**Policy COS-2.1:** Provide and protect open space areas throughout the City for its recreational, agricultural, safety, and environmental value.

**Policy COS-2.2:** Limit, to the extent feasible, the conversion of open space to urban uses and place a high priority on acquiring and preserving open space lands for recreation, habitat protection and enhancement, flood hazard management, water and agricultural resources protection, and overall community benefit.

Policy COS-2.6: Preserve healthy mature trees where feasible; where removal is necessary, trees shall be replaced at a ratio of 1:1.

Goal COS-3: Protect natural topography to preserve and enhance the natural beauty of San Marcos.

Policy COS-3.3: Continue to work with new development and redevelopment project applicants in designing land use plans that respect the topography, landforms, view corridors, wildlife corridors, and open space that exists.

Policy COS-3.4: Evaluate potential impacts to visual and aesthetics resources, including the potential to create new light sources, while still maintaining and being sensitive to rural lighting standards.

Goal COS-8: Focus watershed protection, surface and groundwater quality management on sources and practices that the City has the ability to affect.

Policy COS-8.4: Require new development and redevelopment to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, Best Management Practices (BMPs), low impact development hydromodification strategies consistent with the current San Diego Regional Water Quality Control Board Municipal Stormwater National Pollutant Discharge Elimination System Permit, and all future municipal stormwater permits.

The project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As shown in Section 3.10.4, Project Impact Analysis, the project is consistent with the applicable goals and policies related to biological resources.

#### Multiple Habitat Conservation Program

The California NCCP Act of 1991 (Section 2835) allows the CDFW to authorize take of species covered by plans in agreement with NCCP guidelines. A NCCP, initiated by the State of California, focuses on conserving coastal sage scrub, and in concert with USFWS and the federal ESA, is intended to avoid the need for future federal and state listing of coastal sage scrub-dependent species.

The MHCP Plan spans across northwestern San Diego County and has goals of providing protection for over 80 special status species and approximately 19,000 acres of proposed conservation land (AMEC Earth & Environmental et al. 2003). The City of San Marcos and six additional city jurisdictions (Carlsbad, Encinitas, Escondido, Oceanside, Solana Beach, and Vista) make up the MHCP Plan area. It is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space in order to link core biological areas into a regional wildlife preserve. The MHCP is one of several large multiple jurisdictional habitat planning efforts in San Diego County, each of which constitutes a subregional plan under the NCCP Act of 1991. The MHCP includes incorporated cities in northwestern San Diego County that will implement their respective portions of the MHCP through citywide "subarea" plans, which describe the specific implementing mechanisms each city will institute for the MHCP.

The project site is located within the San Marcos Subarea, which has a Draft Subarea Plan, but was never approved or adopted and remains in draft form as of the date of this report. Although not adopted, the MHCP identifies potential preserve areas as "FPAs" (i.e., Focused Planning Areas) that reflect areas targeted for conservation in



collaboration with the wildlife agencies, developers, property owners, and various environmental groups. In the context of these draft plans, the project site is identified as a “Major Amendment Area” and currently not incorporated in the MHCP or San Marcos Subarea Plan. Because the City of San Marcos has not approved or adopted their Draft Subarea Plan; the project is not subject to the requirements of the MHCP, although it is recognized and herein as a guide for project site planning considerations.

### 3.3.4 Thresholds of Significance

The significance criteria used to evaluate the project impacts to biological resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the project would:

Threshold No. 1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Threshold No. 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Threshold No. 3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold No. 4: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Threshold No. 5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold No. 6: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### 3.3.5 Project Impact Analysis

As described in Chapter 2, Project Description, of this EIR, the project consists of 449 residential units, including 927 parking spaces and 134,985 square feet of common open space area on approximately 15.09 acres within the approximately 33.2-acre project site. The remaining 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area. The proposed project would have a density of approximately 29.8 dwelling units per acre not including the proposed open space and habitat area. With the open space and habitat area included, the density of the proposed project would be approximately 13.5 dwelling units per acre.

The significance of impacts to biological resources present, or with potential to occur on the project site, was determined based upon the sensitivity of the resource and the extent of the anticipated impact. For certain highly sensitive resources (e.g., a federally listed species), any impact would be considered significant. Conversely, other

resources that are of low sensitivity (e.g., species with a large, locally stable population in the County but declining elsewhere) could sustain some impact with a less than significant effect.

The issues addressed in this section are derived from Appendix G of the State CEQA Guidelines. Mitigation, monitoring, and reporting requirements to eliminate or reduce project impacts to a less than significant level are also provided herein.

***Threshold No. 1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

Special status plant and animal species on the project site could be impacted as a result of project implementation. Six special-status plants and one special-status animal species would be directly impacted by grading for the proposed project (**Impact BIO-1**). These species are discussed further below in this section. Direct impacts could also occur during construction if activities inadvertently encroach into areas outside/beyond the authorized limits of work, generate fugitive dust, create excessive noise, or cause erosion or sedimentation into adjacent areas. Direct impacts to sensitive species would be significant as described below but would be reduced to less than significant levels with the implementation work limits demarcation, pre-construction surveys, biological construction monitoring, and implementation of construction best management practices (BMPs).

Indirect impacts to sensitive species (plants and animals) by the proposed project would not occur. Potential impacts as a result of increase human presence, noise, domestic animals, the spread of non-native species, and artificial lighting are not anticipated as discussed in detail in Appendix C.

#### Special-Status Plants

Four special-status plant species occurring on site would be directly impacted by the project: San Diego button-celery (federally listed endangered, state-listed endangered, CNPS California Rare Plant Rank [CRPR] 1B.1, proposed Narrow Endemic under the MHCP), thread-leaved brodiaea (federally listed threatened, state-listed endangered, CNPS CRPR 1B.1, proposed Narrow Endemic under the MHCP), Orcutt's brodiaea (CNPS CRPR 1B.1), and graceful tarplant (CNPS CRPR 4.2) (Figure 3.3-1). Direct impacts to chaparral rein orchid (CNPS CRPR 4.2) and small-flowered morning-glory (CNPS CRPR 4.2) are not expected.

Additionally, direct impacts to these plant species could also occur if project construction inadvertently extends beyond the allowed ground disturbance footprint (limits of work). However, such impacts to special status plants could be avoided through the implementation of standard BMPs during construction, in addition to measures proposed to mitigate potential direct impacts on other sensitive plant species, such as preconstruction surveys, the installation of temporary construction and/or silt fencing at the limits of work, biological construction monitoring where work limits occur adjacent to known sensitive resources, and long-term protection and management of avoided resources.

#### Graceful Tarplant

Graceful tarplant is a low-sensitivity species (CNPS CRPR 4.2), is not proposed for coverage by the MHCP, and is relatively widespread locally and regionally. Impacts to plant species with a CNPS CRPR 2 or lower are considered potentially significant. Because graceful tarplant has a CRPR of 4.2, and this species is also located within the preserved and restored open space areas of the site, and the restoration efforts discussed in the Habitat Mitigation

Monitoring Plan (HMMP) would include this species in the plant palette, impacts to this species are not expected to jeopardize its sensitivity status or long-term survival in the region. Therefore, project impacts to this species would be less than significant and would not require mitigation.

#### San Diego Button-Celery, and Thread-leaved Brodiaea

San Diego button-celery and thread-leaved brodiaea are federally listed endangered and threatened, respectively, and are both CNPS CRPR 1B.1 plants. San Diego button-celery and thread-leaved brodiaea are also state listed endangered. These two species are also proposed as Narrow Endemic under the MHCP, which identifies the project site as supporting critical populations of these two species.

Approximately 33,714 individuals (19%) of thread-leaved brodiaea and 47 individuals of San Diego button-celery (29%) are located within the project footprint and would be directly impacted. Direct impacts to these two listed species are considered significant. Impacts to these two species would require consultation with USFWS through the ESA Section 7 or Section 10 processes, as well as authorization from CDFW in accordance with the California ESA Section 2081 or 2080.1 of the CFGC, as applicable.

Implementation of mitigation measures **MM-BIO-1** and **MM-BIO-3** would be required to ensure direct impacts to these species would be reduced to less than significant levels. Direct impacts/loss of occupied habitat resulting from the proposed project would be mitigated through preparation and the implementation of an HMMP and/or a Preserve Management Plan (PMP) in accordance with mitigation measures **MM-BIO-3**, **MM-BIO-7a**, and **MM-BIO-7b** (as discussed in response to Threshold No. 2, below).

Direct impacts to these two species could also occur if appropriate avoidance and minimization measures are not implemented during construction. Potential direct impacts could be avoided through installation of temporary construction and/or silt fencing at the limits of work (refer to mitigation measures **MM-BIO-5**, below), biological construction monitoring where work limits occur adjacent to known sensitive resources (refer to mitigation measure **MM-BIO-6**, below), and implementation of construction BMPs.

#### Orcutt's Brodiaea

Direct impacts to Orcutt's brodiaea would occur as a result of construction activities within the project impact footprint. Although a non-listed species, Orcutt's brodiaea is a CNPS CRPR 1B.1 species, which carries a higher rank of sensitivity as these species are rare, are generally considered endemic to California, and their populations and range have been in decline. Additionally, the MHCP identifies the project site as supporting a critical population for this species. Direct impacts to this species, approximately 80,907 of the 127,517 individuals mapped on site (approximately 63.4%), would be considered significant.

Implementation of minimization, conservation, and translocation measures prescribed by mitigation measures, **MM-BIO-1**, and **MM-BIO-3** would be required to ensure impacts to this species would be reduced to less than significant levels. Direct impacts/loss of occupied habitat for this species would be mitigated by the implementation of an HMMP in accordance with mitigation measures **MM-BIO-3**, **MM-BIO-7a** and **MM-BIO-7b** (as discussed in response to Threshold No. 2, below).

Direct impacts to this species could also occur if appropriate avoidance and minimization measures are not implemented during construction, including the installation of temporary construction and/or silt fencing at the limits of work (refer to **MM-BIO-5**), biological construction monitoring where work limits occur adjacent to known

sensitive resources (refer to **MM-BIO-6**), and implementation construction BMPs. Perpetual protection and management of occupied habitat for this species would be provided by the implementation of a PMP as set forth in mitigation measure **MM-BIO-7b**.

## Special Status Animal Species

### San Diego Fairy Shrimp

San Diego fairy shrimp is a federally listed endangered species. This species is also proposed as Narrow Endemic under the MHCP, which identifies the project site as supporting a critical population of this species. Of the 20 basins (including 18 vernal pools and 2 road ruts) found to support this species on site, direct impacts would occur to 8 basins (approximately 40%) located within the proposed project impact footprint (Figure 3.3-2). These eight basins occupied by San Diego fairy shrimp to be directly impacted by the project consist of seven vernal pools and one road rut, located in the northern, central, and northeastern portions of the site, respectively.

As part of the project design planning and analysis of potential impacts to San Diego fairy shrimp, an evaluation of the vernal pools and their watersheds was reviewed using on-site topography data, field mapping with GPS, and the drainage study completed for the project site. Potential drainage direction lines were overlaid onto the vernal pool mapping, along with the proposed project footprint, to evaluate project impacts. Although the project development could potentially intercept drainage flow in the northwestern portion of the site, there has been no surface evidence of drainage flow during field surveys conducted between 2019 and 2022, and furthermore, upon review of historical aerial imagery, no photographs were found suggesting such surface flow or ponding connections between vernal pools exist on site (Historical Aerials). Because of the lack of surface flow evidence and flat (less than 10% slopes) topography on site, the surface drainage flow, if present, is suggested to be minimal. Based on field surveys conducted over multiple consecutive years (2019 through 2022) across the site as well as a review of historical aerial imagery, it is expected that the vernal pools, road ruts, other depressional features, on-site fill with water as a result of direct precipitation rather than flow connection across the site. Therefore, and furthermore, these features likely function independently of each other rather than connected together. Thus, impacts to pools in the northern portion of the site are not expected to adversely affect the remaining pools on site to be avoided by the project and proposed for preservation by the project.

Ultimately, the proposed project considered the vernal pool watersheds. Although the project would impact 8 basins occupied by San Diego fairy shrimp, the remaining 12 basins on-site occupied by San Diego fairy shrimp (11 vernal pools and 1 road rut) to be avoided by the project development, including avoidance of their corresponding watersheds plus a buffer surrounding the watershed. Further, the project also considered on-site drainage direction and would be designed in a manner to mimic the potential drainage/discharge flow point and path on-site; thus, project impacts to site drainage would be minor and considered less than significant.

Implementation of avoidance, minimization, conservation, and translocation measures prescribed by mitigation measures **MM-BIO-2** and **MM-BIO-3** would ensure project impacts to this species would be reduced to less than significant levels. Further, direct impacts to this listed species would require authorization and consultation with USFWS through the ESA Section 7 or Section 10 processes, as applicable, as well as with CDFW in accordance with the CESA Section 2081 or Section 2080.1 of the CFGC (**MM-BIO-3**). Direct impacts/loss of occupied habitat for this species would be mitigated by the implementation of an HMMP in accordance with mitigation measures **MM-BIO-3**, **MM-BIO-7a** and **MM-BIO-7b** (as discussed in response to Threshold No. 2, below).

Direct impacts to this species could also occur if appropriate avoidance and minimization measures are not implemented, including measures proposed for potential indirect impacts on other sensitive species, such as: the installation of temporary construction and/or silt fencing at the limits of work (**MM-BIO-5**), biological construction monitoring where work limits occur adjacent to known sensitive resources (**MM-BIO-6**), and long-term protection and management of avoided resources through the implementation of a PMP (**MM-BIO-3**, **MM-BIO-7b** and **MM-BIO-7c**). Impacts to this listed species would be considered potentially significant without mitigation.

#### Nesting Birds

The project site contains trees, shrubs, and other vegetation that provide suitable nesting habitat for common birds, including raptors, protected under the MBTA and CFGC. Construction of the proposed project includes vegetation clearing, which could result in direct impacts to nesting birds if the removal or trimming of vegetation occurs during the bird nesting season (January 15 through September 15). Such impacts to nesting birds would be in violation of the MBTA and CFGC and would be significant, especially if the activities would impact the nesting of candidate, sensitive, or special status species. Additionally, construction activities could result in indirect impacts through disturbance to nesting from noise, dust, and physical presence, such that the disturbance results in nest abandonment or nest failure. These indirect impacts would also be considered significant. Implementation of mitigation measure **MM-BIO-4** would require preconstruction surveys prior to impacts and construction fencing and biological monitoring measures **MM-BIO-5** and **MM-BIO-6** would reduce potentially significant impacts on nesting birds, including raptors, to less-than-significant levels.

#### USFWS Critical Habitat

Nearly the entire project site overlaps with the designated final critical habitat overlay for three federally listed species, including: San Diego fairy shrimp, thread-leaved brodiaea, and spreading navarretia. As mentioned earlier, spreading navarretia was not detected during surveys for this species in 2020 or 2021. Although the project site is substantially disturbed and lacks connectivity to off-site habitat, the proposed impact area occurs within areas that support primary constituent habitat elements associated with these species. Therefore, development on the project site could result in adverse modification to critical habitat for these species, and impacts would be potentially significant without mitigation.

Direct impacts to USFWS critical habitat by the proposed project are considered significant. These impacts would require authorization and consultation with USFWS through the ESA Section 7 or Section 10 processes, as applicable. Implementation of minimization, conservation, and/or translocation measures would reduce impacts to less than significant. Specifically, mitigation measures **MM-BIO-1**, **MM-BIO-2**, **MM-BIO-3**, **MM-BIO-5**, and **MM-BIO-6** would be required, as well as the implementation of mitigation measures **MM-BIO-7a** and **MM-BIO-7b**, which would ensure direct impacts to these species would be reduced to less than significant.

#### Conclusion

The proposed development of the site has the potential to result in significant impacts to special status plant and animal species, including general nesting birds and raptors (**Impact BIO-1**). However, implementation of mitigation measures **MM-BIO-1** through **MM-BIO-6** would ensure that potential impacts to special status species and their habitat are minimized and/or are reduced to below significant. Further, impacts to special status species habitat would be compensated by the implementation of habitat-based mitigation via an HMMP (see mitigation measures **MM-BIO-7a** and **MM-BIO-7b** below). Mitigation measures are outlined in detail in Section 3.3.6. With the implementation of proposed mitigation measures, impacts to special status plant and animal species would be less than significant with mitigation incorporated.

**Threshold No. 2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

The proposed project would result in a potentially significant impact to sensitive natural communities. The proposed project would result in direct impacts to sensitive vegetation communities on site, including vernal pools, Diegan coastal sage scrub (including baccharis dominated form), native grassland, non-native grassland, and mixed grassland. In addition, potential direct impacts could also occur if construction work inadvertently extends beyond the authorized work limits where impacts to sensitive natural communities are not anticipated. Direct impacts to sensitive vegetation communities by the project would be considered significant and require mitigation (**Impact-BIO-2**). No impacts to riparian or other sensitive natural communities are expected to occur. Direct impacts to non-sensitive habitats (disturbed habitat and developed land) would also occur, but are not considered significant and, therefore, do not require mitigation. Potential indirect impacts as a result of increased human presence, noise, domestic animals, the spread of non-native species, and artificial lighting are not anticipated. Therefore, indirect impacts to sensitive natural communities as a result of the proposed project would not occur.

Sensitive natural communities on the project site that could be impacted are summarized below in Table 3.3-6.

**Table 3.3-6. Impacts to Sensitive Natural Communities**

| Vegetation Community and Habitat Group <sup>1</sup>                               | Acres <sup>2</sup> | Off-Site Improvements (acres) <sup>2</sup> |
|---|--------------------|--|
| <b>Wetland</b>  |                    |  |
| Vernal Pool (Group A) <sup>3</sup>  | 0.15               | —  |
| <i>Wetland Subtotal</i>   | <i>0.15</i>        | <i>—</i>                                   |
| <b>Upland</b>   |                    |  |
| Native Grassland – including disturbed (Group B) <sup>4</sup>                     | 5.31               | 0.01                                       |
| Diegan Coastal Sage Scrub – including disturbed and Baccharis-dominated (Group C) | 1.07               | 0.02                                       |
| Mixed Grassland – disturbed (Group E) <sup>4</sup>                                | 5.17               | 0.35                                       |
| Non-native Grassland (Group E) <sup>4</sup>                                       | 3.35               | 0.22                                       |
| <i>Upland Subtotal</i>  | <i>14.9</i>        | <i>0.60</i>                                |
| <b>Total</b>  | <b>15.05</b>       | <b>0.60</b>                                |

Source: Appendix C.

**Notes:**

- <sup>1</sup> Groups defined by the MHCP.
- <sup>2</sup> Acres rounded to the nearest 0.01 acre.
- <sup>3</sup> Does not include road ruts or other depressions.
- <sup>4</sup> Includes road ruts and other depressions. Includes 0.03-acre temporary impact along South Pacific Street.

Mitigation for direct impacts to sensitive vegetation communities identified in Table 3.3-6 would be compensated in accordance with the mitigation ratios presented in Tables 4-6 and 4-7 of the MHCP (AMEC Earth & Environmental et al. 2003) and Section 5.2.1 of the City’s Subarea Plan (City of San Marcos 2001). In addition, the implementation of measures to protect sensitive species (MM-BIO-5 and MM-BIO-6) would ensure that sensitive natural vegetation community areas beyond the authorized limits of work are protected during construction through the installation of temporary work/impact limits fencing (orange silt fencing or similar) and biological construction monitoring to verify the

authorized impact limits are not exceeded. Proposed mitigation measures MM-BIO-7a and MM-BIO-7b provide further specific requirements for how compensatory mitigation to sensitive natural communities would be implemented.

Implementation of the proposed project would result in significant impacts to sensitive natural communities (i.e., Diegan coastal sage scrub, native grassland, non-native grassland, mixed grassland, and vernal pools). Native habitat creation/restoration/preservation of impacted habitats would fully compensate for the loss of habitat and reduce impacts to below a level of significance. With the implementation of mitigation measures **MM-BIO-5, MM-BIO-6, MM-BIO-7a** and **MM-BIO-7b**, impacts on sensitive natural communities would be less than significant with mitigation incorporated.

**Threshold No. 3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Implementation of the proposed project would affect federally protected wetlands and other potential jurisdictional features. This impact would be considered significant (**Impact BIO-3**). The proposed project would directly impact wetlands and waters under Section 404 of the CWA subject to the jurisdiction of USACE, jurisdictional waters of the State subject to jurisdiction by RWQCB under Section 401 of the CWA and/or under Porter-Cologne, and protected streambed and associated riparian habitat under the jurisdiction of CDFW per Section 1602 of the CDFW Game Code, as shown in Table 3.3-7. Indirect impacts to potentially jurisdictional resources by the proposed project are not expected.

**Table 3.3-7. Impacts to Potentially Jurisdictional Resources**

| Potential Jurisdictional Resources | Potential Resource Agency Jurisdiction |             |             | Acres       |
|------------------------------------|--|-------------|-------------|-------------|
|                                    | USACE/RWQCB/CDFW                       | USACE/RWQCB | RWQCB       |             |
| <b>Wetlands</b>                    |  |             |             |             |
| Vernal Pools                       | –                                      | 0.15        | –           | 0.15        |
| Drainage 1 (Swale)                 | –                                      | –           | –           | –           |
| <i>Subtotal</i>                    | –                                      | 0.15        | –           | 0.15        |
| <b>Non-Wetland</b>                 |  |             |             |             |
| Drainage 2 (Streambed)             | <0.0001                                | –           | –           | <0.0001     |
| Other Seasonally Poned Features    | –                                      | –           | 0.01        | 0.01        |
| <i>Subtotal</i>                    | <0.0001                                | –           | 0.01        | 0.01        |
| <b>TOTAL</b>                       | <b>0.0001</b>                          | <b>0.15</b> | <b>0.01</b> | <b>0.16</b> |

Source: Appendix C.

Notes: USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

As a regulatory requirement, the proposed project must notify and obtain necessary permits from the resource agencies responsible, including USACE, RWQCB, and/or CDFW, as applicable. Implementation of measures **MM-BIO-8a** and **MM-BIO-8b** would ensure that the appropriate permits are obtained and that the impact is compensated in accordance with USACE, RWQCB, and/or CDFW requirements, as applicable. Implementation of required construction BMPs, in combination with mitigation measures **MM-BIO-5** and **MM-BIO-6** to protect sensitive species, would ensure that construction activities are regularly monitored, are contained within the proposed work limits, and that no additional impacts (including indirect impacts) to adjacent jurisdictional resources occur.

In conclusion, implementing the proposed project would result in significant impacts to protected jurisdictional resources under potential regulation by USACE, RWQCB, and or CDFW. The proposed project would be required to secure the necessary regulatory permits prior to impacts per mitigation measure **MM-BIO-8a**. It is anticipated that a 404 permit from USACE, 401 Certification from the RWQCB, and a 1602 agreement from CDFW would be needed. If the wetlands or waters on site are ruled non-jurisdictional by USACE, it is anticipated that a Waste Discharge Requirement Permit from RWQCB and a 1602 agreement from CDFW would be required. Mitigation measure **MM-BIO-8b** proposes ratios consistent with those typically required by these regulatory agencies and, therefore, would compensate for impacts to jurisdictional resources, such that impacts would be reduced to a level of less than significant with mitigation incorporated.

***Threshold No. 4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

Development on the project site would not interfere with wildlife movement or nursery functions. The project site does not support fish habitat, is entirely bounded by existing development, is not contiguous with native habitats, and is outside of areas where wildlife movement opportunities do occur (along undeveloped open space habitat corridors). Areas may be used by smaller urban-adapted mammal species and bird species, but such areas are not considered refuge as a wildlife corridor or habitat linkage.

The project site is identified by the MHCP to support a critical population of one animal species, San Diego fairy shrimp, which was found during biological studies to occur in several vernal pools located across the project site. However, San Diego fairy shrimp is strictly found in ephemeral pools or other seasonally ponded habitats and is essentially non-mobile. Further, the project site is located in an urban and developed area that does not support wildlife movement or nursery functions. Based on the analysis above, development on the project site would not interfere or impede with wildlife movement, corridors, or nursery sites. No impacts would occur.

***Threshold No. 5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

Section 14.12.200 of the City's Municipal Code provides that where a permit is required for excavation, fill, or obstruction for installation or repair of utilities under any public street, sidewalk, trail, or public place, such construction should be located away from trees. As described in Chapter 2 the proposed project would likely require utility work within public streets including sewer and water improvements, storm drainage facilities, and roadway network improvements. However, as a requirement under the City's Municipal Code to obtain an excavation permit, such construction will be located away from trees and not otherwise require the removal of trees within the public right-of-way. In the case that construction away from trees is unavoidable, the applicant will confer with the Director of Development Services, or their designee, to determine how best to avoid conflicts with mature trees and their root systems. The project would be required to demonstrate compliance with this requirement to the satisfaction of the Director to obtain an excavation permit.

Per General Plan Policy COS-2.6, healthy mature trees are to be preserved, where feasible, and where removal is necessary, trees shall be replaced at a ratio of 1:1. The project as proposed would not require the removal of any healthy mature trees. The proposed project would incorporate a conceptual landscape plan that would detail tree planting plans and would be drafted to be aligned with all relevant General Plan policies, including this tree preservation policy.



Further, as discussed in Section 3.10, the project would be consistent with the City's General Plan Conservation and Open Space Element. The proposed project would conserve existing biological resources and incorporate open space area into the project design plans, which would be subject to City review. Therefore, it is determined that the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur.

***Threshold No. 6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

The project site is recognized for future incorporation in the MHCP and corresponding Draft San Marcos Subarea Plan. Because the project site is not incorporated, the draft policies and guidelines of the Draft San Marcos Subarea Plan are currently not applicable to the proposed project. Further, the Draft San Marcos Subarea Plan has not been adopted and remains in draft form since 2001; therefore, the project would not be in conflict with an adopted habitat conservation plan. Nonetheless, the implementation of the proposed project would not preclude or prevent finalizing and adoption of the Draft San Marcos Subarea Plan because the conservation estimates/requirements exclude the project site, and its adoption is not reliant on incorporating the project site as open space or protected habitat.

The proposed project would also not conflict with the provisions of the MHCP. The project site is located within a "Major Amendment Area" by the MHCP, is targeted in the MHCP as a high priority for conservation and is identified to be a critical location to the conservation of vernal pools and other associated MHCP narrow endemic species. Critical populations of MHCP species (including narrow endemic species) are identified occurring on the project site and within the proposed project impact footprint. According to the MHCP, even though the project site is surrounded by development and is a relatively small "postage-stamp" size, the narrow endemic species onsite would be presumed to persist with proper conservation mechanisms and management. However, the MHCP specifically excluded the project site from the MHCP conservation areas, estimates, and requirements, and assumes land acquisition and conservation planning for the project site would occur at a later date in cooperation with willing landowners, such as during approvals and development of the proposed project.

According to the MHCP Narrow Endemic Species and Critical Population Policies (MHCP Volume II Appendix D), known locations of narrow endemic species, including their critical populations, should be substantially conserved, and impacts should be avoided to the maximum extent practicable. This is generally interpreted as requiring avoidance of impacts to the degree practicable, without precluding reasonable use of a property. Avoidance and minimization measures should factor in various biological requirements, such as buffer widths and other species considerations. The MHCP also distinguishes avoidance and minimization measures for impacts to narrow endemic species located inside of Focused Planning Areas versus impacts in areas outside of Focused Planning Areas. Per Figures 2-4 and 3-1 of the MHCP, the project site is located outside of the Biological Core and Linkage Area and is a Major Amendment Area.

Narrow endemic populations identified in the MHCP as "Critical" must be either totally avoided or avoided to the maximum extent practicable without precluding economic or productive use of the property. If the project Applicant is able to demonstrate to the satisfaction of the City that species avoidance would hinder economic or productive use of a property, impacts would likely be restricted to a maximum of five percent gross cumulative loss of the critical population or occupied habitat acreage as most appropriate for the species (MHCP Volume II Appendix D). In some rare cases, no take of individuals, populations, or habitat of high-priority critical endemic species would be allowed until a certain regional conservation threshold has been achieved in support of species recovery.

The project site is designated as a Major Amendment Area in the MHCP and the policies therein are not required; however, such policies were considered to guide the proposed project development and conservation area on the project site. The proposed project would impact three MHCP narrow endemic species on site, including San Diego fairy shrimp, San Diego button celery, and thread-leaved brodiaea. Details on impacts to narrow endemic species, including critical populations, are provided in Section 5.2.1 of Appendix C. Although the project site is a Major Amendment Area in the MHCP and biological resources on site are excluded from the MHCP conservation estimates/requirements, the MHCP is used as a guide for species conservation on site. The proposed development was designed to minimize impacts to MHCP narrow endemic species and critical populations of such species on the project site to the extent practicable, which would be subject to review and approval by the City, USFWS, and/or CDFW, as applicable.

The proposed project would also comply with minimum standards and mitigation ratios required by the MHCP, as set forth in mitigation measures **MM-BIO-1** through **MM-BIO-8b**. Compliance with mitigation measures MM-BIO-1 through MM-BIO-8b outlined below in Section 3.3.6 would ensure that the proposed project would reduce impacts, including impacts to Narrow Endemic Species, to less than significant. Overall, compliance with existing regulations, in addition to the implementation of mitigation measures MM-BIO-1 through MM-BIO-8b, would ensure the proposed project would not preclude or prevent finalizing and/or adoption of the City's draft Subarea Plan under the MHCP. Therefore, impacts would be less than significant with mitigation incorporated.

### 3.3.6 Mitigation Measures

Mitigation measures **MM-BIO-1** through **MM-BIO-8b** outlined below would ensure consistency with the MHCP and draft San Marcos Subarea Plan, reduce potential impacts related to special status plants and animals, would reduce potential impacts on sensitive natural communities, and would ensure that the appropriate permits are obtained and that impacts are compensated in accordance with USACE, RWQCB, and CDFW requirements. With implementation of mitigation measures **MM-BIO-1** through **MM-BIO-8b**, impacts to biological resources as a result of project implementation would be reduced a level of less than significant.

**MM-BIO-1** Rare Plant Transplant Plan. Prior to issuance of land disturbance, clearing, grubbing, or grading permits for the project site, the project Applicant shall submit a rare plant transplant plan to the City and resource agencies (USFWS and CDFW) regarding transplanting and monitoring of special-status plants: San Diego button-celery, Orcutt's brodiaea, and thread leaved brodiaea. The transplant plan shall include, at minimum, methods for plant salvage, seed/bulb/corm collection, transplantation, relocation, performance standards, and maintenance and monitoring (5 years) to provide for no loss of these plant species and to achieve establishment success. Overall, San Diego button-celery, Orcutt's brodiaea, and thread-leaved brodiaea shall be translocated and/or replanted through propagation into existing suitable habitat in the on-site open space preserve near existing populations of these species and according to the conceptual mitigation plan for the project (refer to Figure 15, Conceptual Mitigation Plan, in the Biological Resources Technical Report prepared for the project). The planting of these species shall also be incorporated, as applicable, into the revegetation palettes discussed in the Vernal Pools Mitigation Plan (MM-BIO-2). The transplant plan shall be approved by the City and resource agencies, and will meet currently accepted standards for sensitive species translocation. Contingency measures, in case performance standards are not met after 5 years, shall be included in the plan to ensure success (i.e., no loss of these plant species) is achieved. Resource Agency verification that transplant plan success criteria has been met is required for the completion of this measure. In addition to the

transplant plan, a cost estimate to implement the plan shall be provided to the City and resource agencies for approval and the project Applicant shall post/secure a bond in the amount of 120% of the approved cost estimate for financial assurance of the plan prior to any clearing, grubbing, grading or other land disturbance related to the project.

**MM-BIO-2** **Vernal Pools Mitigation Plan.** Prior to any land disturbance, clearing, grubbing, or grading permits for the project site, the project Applicant shall submit a Vernal Pool Mitigation Plan (VPMP) to the City and resource agencies, describing the creation, re-establishment, and/or restoration, as well as maintenance and monitoring (5 years) of vernal pools in the mitigation plan. Vernal pool mitigation shall occur on-site within appropriate suitable habitat in the on-site open space preserve, according to the conceptual mitigation plan for the project. The VPMP shall include, at minimum, restoration methods, performance standards, and contingency measures if performance standards are not met. Vernal pool mitigation areas shall require agency sign-off after successful completion. If impacts to vernal pools occupied by listed San Diego fairy shrimp cannot be fully avoided, a consultation shall occur with USFWS to obtain take authorization pursuant to the federal ESA and as described in mitigation measure BIO-3. Measures required by USFWS as a result of consultation shall be implemented, which may include preparation and implementation of a resource salvage plan and translocation of cysts by inoculation into existing suitable habitat within approved preserve areas or into created or restored habitat on-site. Suitable habitat is located within existing depressions (found not occupied) near existing vernal pools to be preserved on-site, which is located within the Vernal Pool Major Amendment Area in the City's Draft Subarea Plan. Ultimately, the VPMP shall be approved by the City and resource agencies. In addition to the VPMP, a cost estimate to implement the plan shall be provided to the City and resource agencies for approval and the project Applicant shall post/secure a bond in the amount of 120% of the approved cost estimate for financial assurance of the plan prior to any clearing, grubbing, grading or other land disturbance related to the project.

**MM-BIO-3** **Listed Species Conservation Measures.** Prior to issuance of any land disturbance, clearing, grubbing, or grading permits for the project site, the project Applicant shall demonstrate to the City that consultation with USFWS for adverse effects to San Diego Fairy shrimp, thread leaved brodiaea, and San Diego button celery has occurred in accordance with Section 7 or Section 10 of the federal ESA, as applicable. Impacts to San Diego button celery and thread leaved brodiaea shall also require either a Section 2080.1 Consistency Determination or a Section 2081(b) Incidental Take Permit, according to the federal action, or demonstrate to the City that none was required. Impacts to habitat occupied by these listed species shall be compensated by the implementation of habitat-based mitigation via an HMMP and long-term conservation and management via a PMP (see mitigation measures MM-BIO-7a and MM-BIO-7b).

**MM-BIO-4** **Avoidance of Nesting Birds and Raptors.** To prevent direct impacts to nesting birds, including raptors, protected under the federal MBTA and the CFGC, any project construction activities requiring the removal and/or trimming of vegetation suitable for nesting birds (including clearing, grubbing, trenching, grading, or any land disturbances) shall occur outside of the breeding season for general birds, including raptors (January 15 to September 15). The City may waive this condition, provided that the following additional avoidance measures are taken. If the construction activities cannot avoid the bird breeding season, a qualified biologist shall be retained to conduct a pre-construction nesting bird survey within 7 days prior to the activities to confirm the presence or

absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities shall proceed with the reassurance that no violation to the MBTA and CFGC would occur. If an active bird nest is found by the qualified biologist, then vegetation removal and/or trimming activities at the nest location and within 300 feet for passerine birds and 500 feet for raptors shall not be allowed to occur until the qualified biologist has determined that the nest is no longer active. Buffers may be reduced only at the discretion of the qualified biologist, depending on the bird species and construction/vegetation removal activities required in the vicinity of the active nest.

**MM-BIO-5 Construction Work Limits Fencing.** Prior to any clearing, grubbing, or issuance of grading permits for the project site, it shall be demonstrated to the City that the approved grading boundaries and limits of work are presented on the Final Construction Drawings, including the limits of work fencing. To help ensure inadvertent/unauthorized impacts to environmentally sensitive areas outside of the approved limits of work footprint are avoided, temporary construction fencing (orange fencing or similar), including silt fencing as appropriate, shall be installed at the edges of the approved impact limits. This fencing shall be installed prior to construction and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact sensitive species or habitats to be avoided. Prior to installation, a qualified biologist shall survey the fencing location to inspect that the fencing alignment is consistent with the Final Construction Drawings and to verify no special-status plant species occur within the fencing installation location. If special-status plants are detected, the fencing alignment shall be adjusted to avoid those plant individuals, or such plants shall be relocated into the project preserve areas to avoid their impact as a result of fence installation. Once the fencing is installed, the City and project biologist (see MM BIO-6) shall determine the need for additional inspections and monitoring activities throughout the duration of construction. If work occurs beyond the fenced or demarcated limits of impact, work in the affected areas shall cease until the problem has been remedied and mitigation identified satisfactory to the City and qualified biologist. All temporary construction fencing shall be removed upon completion of construction.

**MM-BIO-6 Biological Construction Monitoring.** Prior to grading, the project Applicant shall demonstrate to the City that a qualified biologist has been retained to monitor construction activities, including monitoring of the temporary work/impact limits fencing installation (see MM-BIO-5), which clearly delineates the edge of the approved work limits and the edges of environmentally sensitive areas that occur beyond the approved limits. The qualified biologist shall conduct a preconstruction environmental training session for construction personnel to inform them of the sensitive biological resources in the local area and the avoidance measures in place to remain in compliance. The monitoring, at minimum, shall include inspection of construction work areas, including staging and storage areas, to confirm that activities are kept within the approved limits and that Best Management Practices are in place. The biologist shall regularly monitor construction activities throughout construction. If items of non-compliance are identified, the biologist shall notify the on-site construction superintendent immediately to discuss and implement corrective actions. Issues of non-compliance that result in additional impacts to sensitive biological resources shall be documented and provided to the City within 72 hours of identification. Mitigation for unauthorized impacts shall adhere to the applicable measures in the Biological Resources Technical Report prepared for the project.

MM-BIO-7a Compensatory Mitigation for Impacts to Sensitive Natural Communities. The proposed project shall compensate for impacts to sensitive natural communities (i.e., Diegan coastal sage scrub, native grassland, non-native grassland, mixed grassland, and vernal pools) according to the ratios provided in Table 3.3-8 below. Mitigation shall not occur at levels below the ratios described in Table 3.3-7 unless otherwise conditioned in permits and/or discretionary approvals issued by USFWS, USACE, RWQCB, and/or CDFW, as applicable.

**Table 3.3-8. Mitigation for Impacts to Sensitive Natural Communities**

| Vegetation Community and Habitat Group <sup>1</sup>                               | Impacts <sup>2</sup> | Mitigation Ratio <sup>3</sup> | Required Mitigation <sup>2</sup> |
|---|----------------------|-------------------------------|----------------------------------|
| <b>Wetland</b>  |                      |                               |                                  |
| Vernal Pool (Group A)   | 0.15                 | 3:1                           | 0.45                             |
| <i>Wetland Subtotal</i>   | <i>0.15</i>          | —                             | <i>0.45</i>                      |
| <b>Upland</b>   |                      |                               |                                  |
| Native Grassland – including disturbed (Group B)                                  | 5.32                 | 2:1                           | 10.64                            |
| Diegan Coastal Sage Scrub – including disturbed and Baccharis-dominated (Group C) | 1.09                 | 1:1                           | 1.09                             |
| Mixed Grassland – disturbed (Group E)   | 5.52                 | 0.5:1                         | 2.76                             |
| Non-Native Grassland (Group E)  | 3.57                 | 0.5:1                         | 1.796                            |
| <i>Subtotal</i>   | <i>14.84</i>         | —                             | <i>16.28</i>                     |
| <b>Total</b>  | <b>14.99</b>         | —                             | <b>16.73</b>                     |

**Notes:**

- <sup>1</sup> Groups defined by the MHCP.
- <sup>2</sup> Acres rounded to the nearest 0.01 acre. Includes project development on-site and off-site improvements.
- <sup>3</sup> Mitigation Ratios are consistent with those listed in Tables 4-6 and 4-7 of the MHCP (AMEC Earth & Environmental et al. 2003) and Section 5.2.1 of the City Subarea Plan (City of San Marcos 2001) for lands located outside Focused Planning Areas.

MM-BIO-7b Compensatory Mitigation for Permanent Impacts to Sensitive Natural Communities. Prior to issuance of and land disturbance, clearing, grubbing, or grading permits for the proposed project, the Applicant shall demonstrate to the City that compensatory mitigation for direct permanent impacts to sensitive natural communities (i.e., Diegan coastal sage scrub, native grassland, non-native grassland, mixed grassland, and vernal pools) has been adequately proposed in accordance with the ratios described in mitigation measure MM-BIO-7a and secured through one or a combination of the following mechanisms:

- Implementation of on-site and/or off-site habitat preservation, creation, restoration, and/or enhancement
- Purchase of off-site conservation credits from a conservation bank in the region (such as Brook Forest Mitigation Bank, Cleveland Corridor Conservation Bank, Heights of Pala Mesa Conservation Bank, Manchester Avenue Conservation Bank, Ramona Grasslands Conservation Bank, Red Mountain Conservation Bank, or another location deemed acceptable by the City).

Compensatory mitigation proposed on- and/or off-site through habitat establishment, re-establishment, and/or restoration areas shall be required to prepare and implement a Habitat Mitigation Monitoring Plan (HMMP) and a Preserve Management Plan (PMP), which shall be subject to City review and approval prior to issuance of any permits for the proposed project. Because the

rare plant transplant plan and vernal pools mitigation plan (see Bio-1 and Bio-2 above) ultimately prescribes actions resulting in grasslands and vernal pools establishment, re-establishment, and/or restoration, such plans shall suffice as the HMMP provided the pertinent information prescribed below is incorporated.

The HMMP shall prescribe the on-/off-site mitigation actions of creation/establishment, re-establishment, restoration, and/or preservation. The HMMP shall include discussion on the location of any creation/establishment, re-establishment, restoration, and/or preservation site(s); requirements for site preparation, soil amendments, temporary irrigation, native plant palettes, installation methods, maintenance, and performance monitoring, as appropriate. The HMMP shall include graceful transplant into the native habitat planting seed palette, where appropriate. The HMMP shall also include information pertaining to any specific rare plant translocation plans (see MM-BIO-1) or vernal pool resources mitigation plans (see MM-BIO-2) as applicable. The HMMP shall require that all mitigation (except for preservation areas not restored) be subject to a minimum 5-year performance monitoring period with specific success criteria to ensure that the impacted functions and services are restored. A protective instrument, such as a conservation easement or restrictive covenant, shall be recorded over the mitigation areas where such a protective instrument does not already exist. All the mitigation areas shall be subject to long-term management as outlined by the PMP prepared for the proposed project.

The PMP for the proposed project site shall prescribe the on-/off-site actions of stewardship and perpetual management of the preserve areas and include at minimum: (a) the location and description of the mitigation area; final plans for the mitigation area; (b) the responsible entities for the mitigation area; (c) the management funding amount and mechanism, based on a Property Analysis Record (PAR) or similar cost estimation method; (d) specific habitat and monitoring management directives such as: vegetation monitoring, sensitive species monitoring, control and treatment of non-native invasive/exotic plant species; (e) specific success criteria (f) public awareness; (g) preserve barriers or fencing management; (h) monitoring and reporting schedules; and (i) adaptive management recommendations for the preserve area. Implementation of long-term management shall be provided by a qualified entity approved by the City with experience in managing preserve lands (i.e., CDFW list of qualified entities).

Because the project proposes impacts and mitigation that involve resources regulated by USFWS, USACE, RWQCB, and/or CDFW, the City shall also coordinate concurrence approval of the HMMP and PMP by these agencies, as appropriate.

MM-BIO-8a **Regulatory Permitting.** Prior to impacts to potentially jurisdictional resources, the Applicant shall provide the City copies of all applicable regulatory permits issued by USACE, RWQCB, and/or CDFW.

MM-BIO-8b **Compensatory Mitigation for Impacts to Jurisdictional Resources.** Impacts to jurisdictional resources under the regulation of USACE, RWQCB, and/or CDFW that result from the proposed project shall be mitigated at a 3:1 ratio consisting of a minimum 1:1 creation/establishment/re-establishment, subject to regulatory permitting requirements of USACE, RWQCB, and/or CDFW, as applicable (**MM-BIO-8a**). Mitigation shall be provided through one or a combination of the following mechanisms below:














- Purchase of preservation, establishment, re-establishment, rehabilitation, and/or enhancement credits from a mitigation bank (such as the Brook Forest Mitigation Bank, Ramona Grasslands Conservation Bank, San Luis Rey Mitigation Bank, or another bank) approved by USACE, RWQCB, and CDFW as applicable.
- Implementation of permittee-responsible preservation, creation/establishment, re-establishment, restoration, rehabilitation and/or enhancement at an on- or off-site location approved by USACE, RWQCB, and/or CDFW as applicable. Permittee-responsible mitigation proposed on- and/or off-site shall be required to prepare and implement a Habitat Mitigation Monitoring Plan (HMMP) and a Preserve Management Plan (PMP) (see **MM-BIO-7b**), which shall be subject to USACE, RWQCB, and/or CDFW review and approval prior to implementation. The HMMP shall prescribe the on-/off-site mitigation actions proposed, and the PMP shall provide the parameters for stewardship and perpetual management.

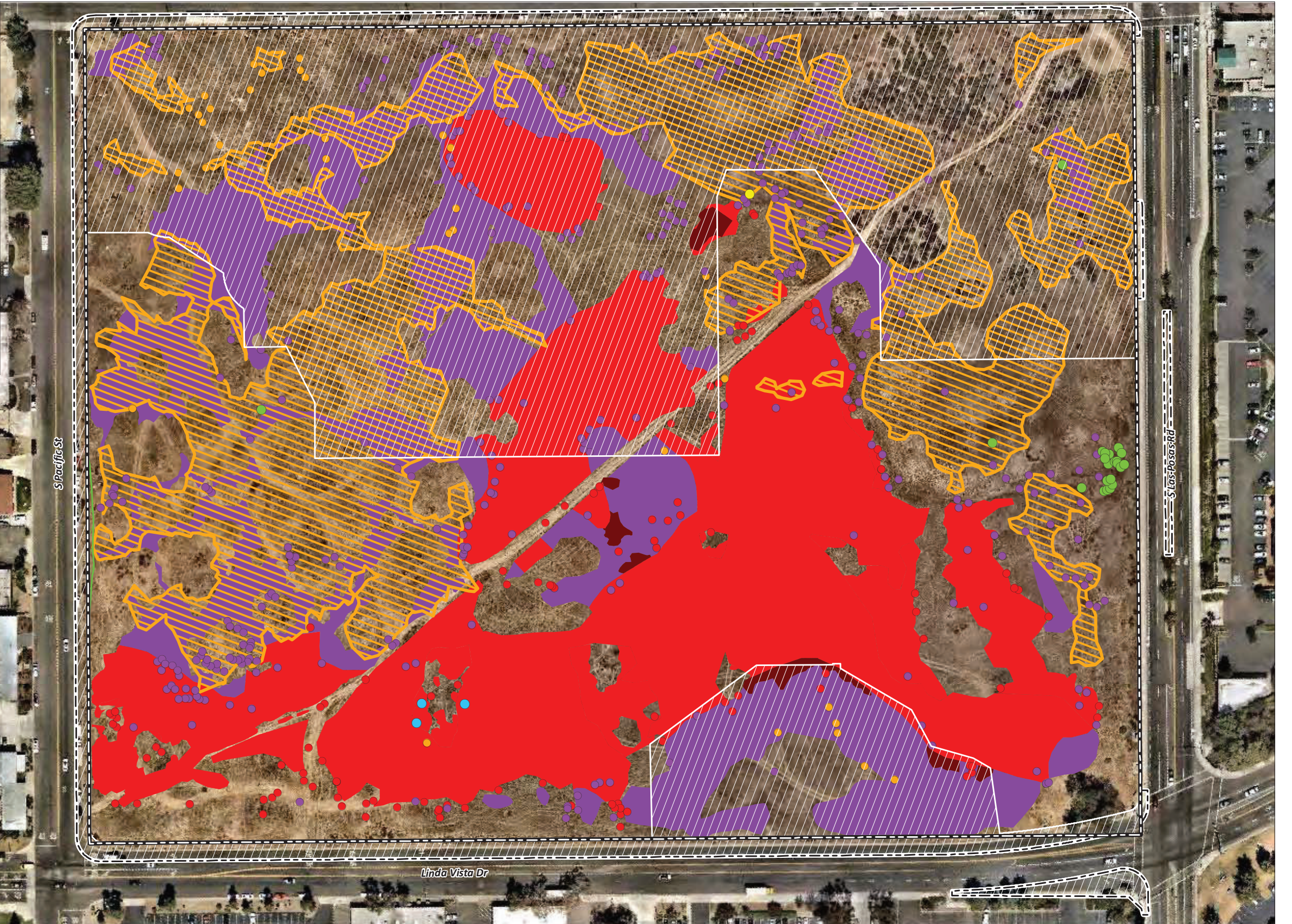
### 3.3.7 Conclusion

As described throughout Section 3.3.5, Project Impact Analysis, implementation of the proposed project would result in potentially significant impacts to biological resources (**Impact BIO-1**, **Impact BIO-2**, and **Impact BIO-3**). However, compliance with existing regulations and implementation of proposed mitigation measures **MM-BIO-1** through **MM-BIO-8b** outlined in Section 3.3.6 above, would ensure that the proposed project would not conflict with the MHCP or draft San Marcos Subarea Plan, or other applicable regulations related to biological resources. Implementation of proposed mitigation, and City review of proposed project plans for the site would ensure impacts to biological resources would be reduced to a level of less than significant.

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-  Project Boundary
  -  Off-site Improvements
  -  Permanent Impact
  -  Temporary Impact
- Special Status Plants**
-  Chaparral Rein-orchid (*Piperia cooperi*)
  -  San Diego Button-celery (*Eryngium aristulatum* var. *parishii*)
  -  Small-flowered Morning-glory (*Convolvulus simulans*)
  -  Orcutt's Brodiaea (*Brodiaea orcuttii*)
  -  Thread-leaved Brodiaea (*Brodiaea filifolia*)
  -  Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*)
  -  Orcutt's Brodiaea Area (*Brodiaea orcuttii*)
  -  Thread-leaved Brodiaea Area (*Brodiaea filifolia*)
  -  Orcutt's Brodiaea (*Brodiaea orcuttii*) and Thread-leaved Brodiaea (*Brodiaea filifolia*)
  -  Graceful Tarplant Area (*Holocarpha virgata* ssp. *elongata*)

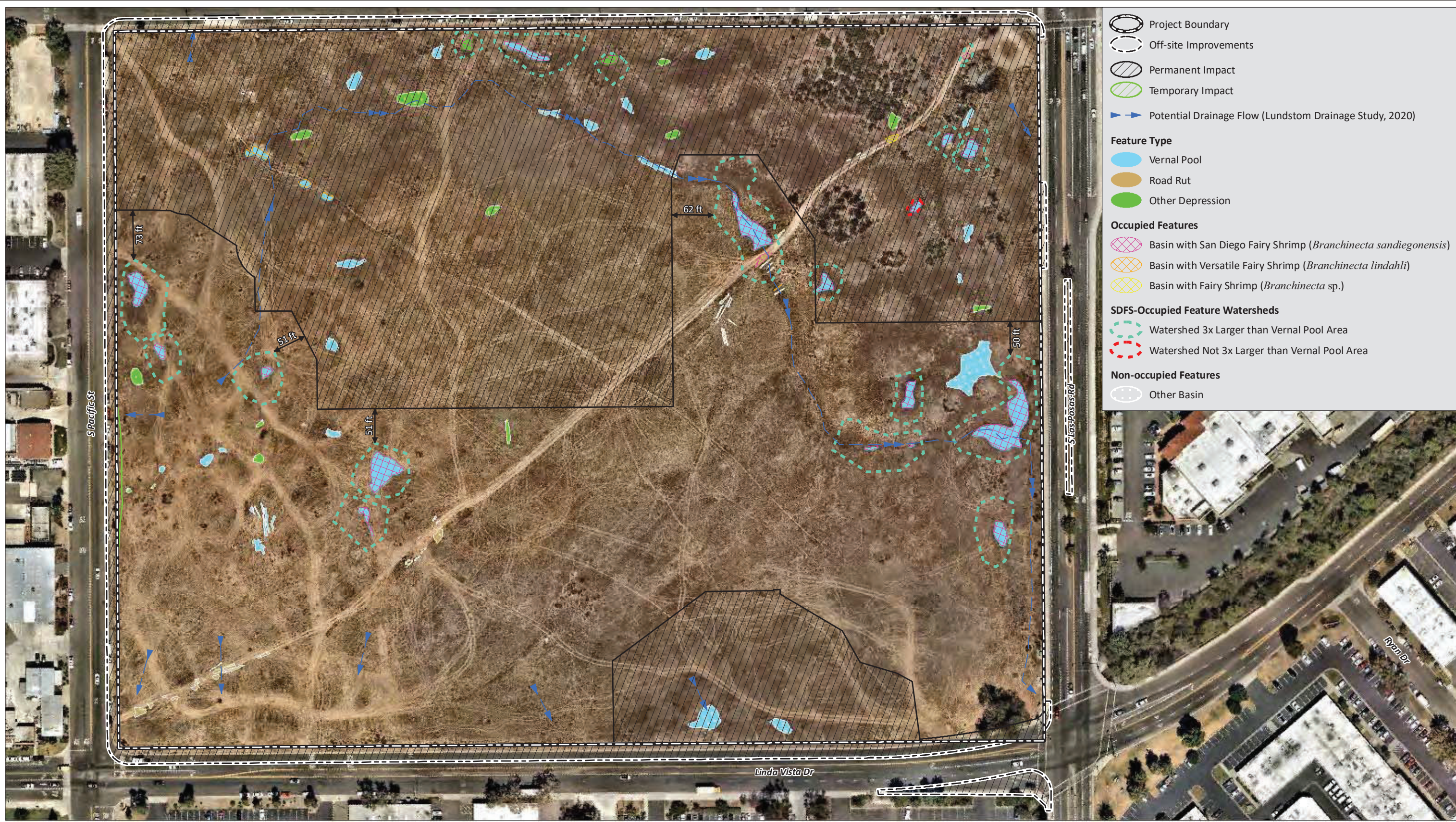


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SOURCE Helix Environmental Planning, 2022

**FIGURE 3.3-1**  
Special-Status Plant Species  
Pacific Project EIR













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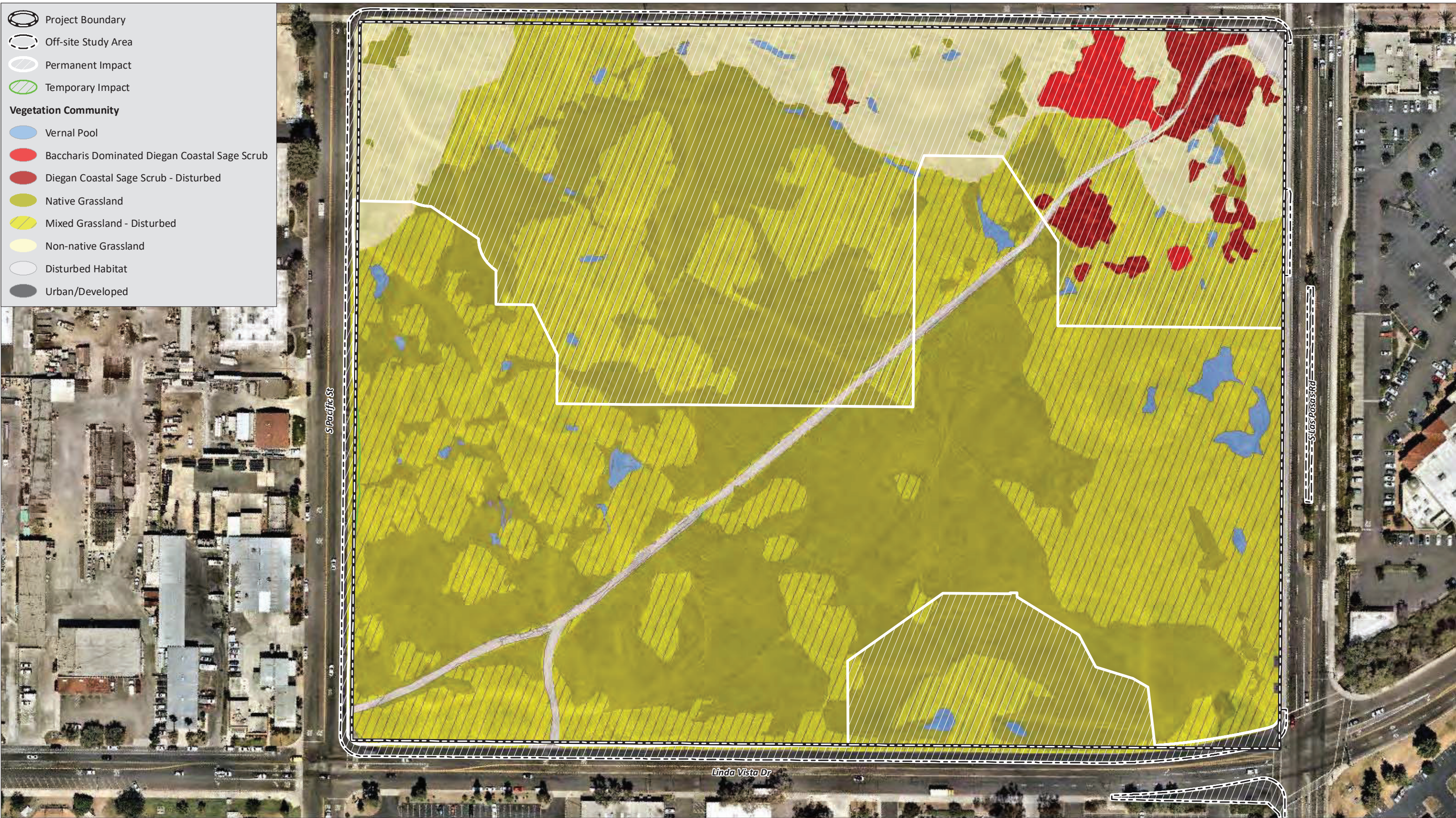


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-  Project Boundary
-  Off-site Study Area
-  Permanent Impact
-  Temporary Impact
- Vegetation Community**
-  Vernal Pool
-  Baccharis Dominated Diegan Coastal Sage Scrub
-  Diegan Coastal Sage Scrub - Disturbed
-  Native Grassland
-  Mixed Grassland - Disturbed
-  Non-native Grassland
-  Disturbed Habitat
-  Urban/Developed

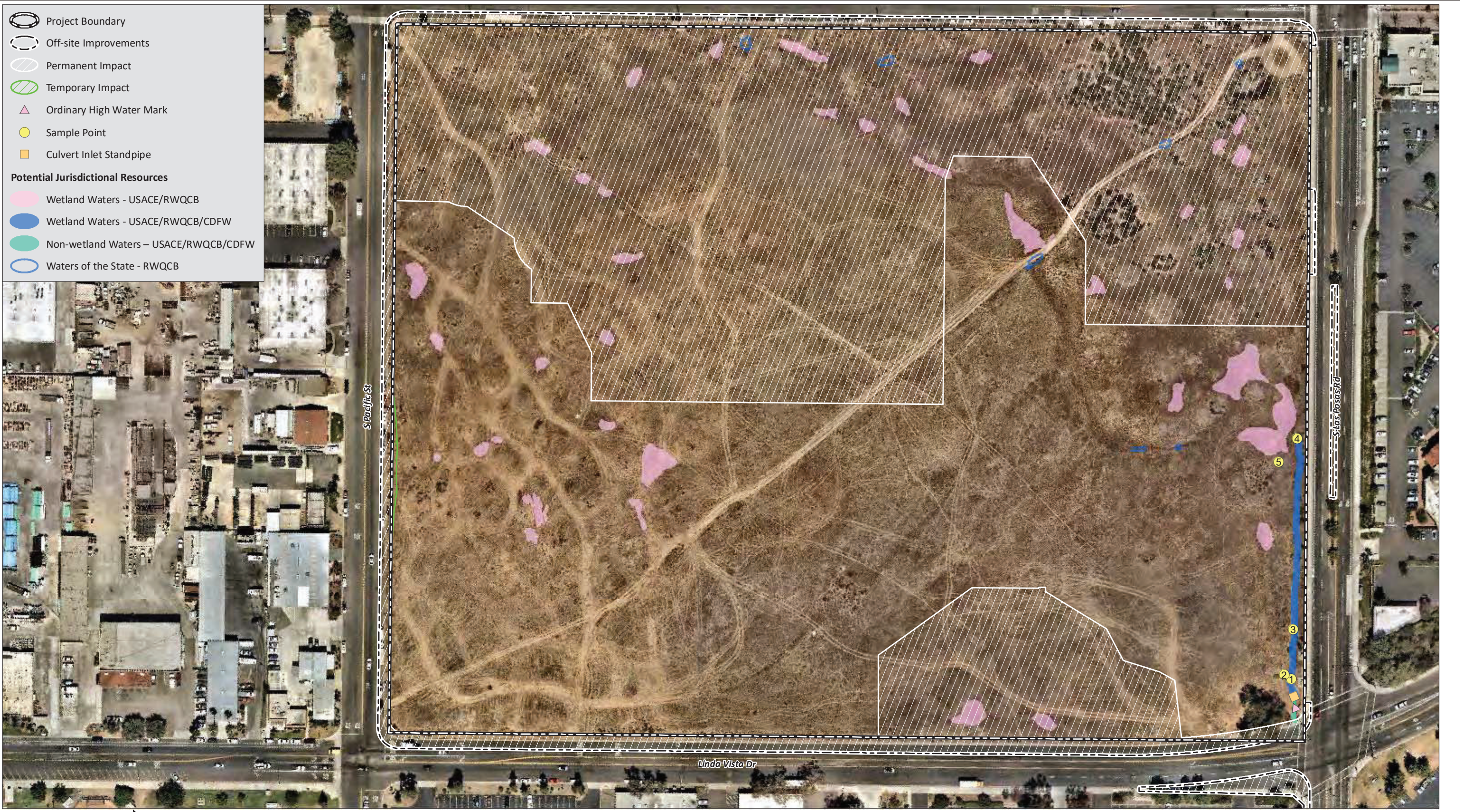


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**FIGURE 3.3-4**

Potentially Jurisdictional Wetlands and Waters

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## 3.4 Cultural Resources

This section describes the existing cultural resources of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Potential impacts to Tribal Cultural Resources are analyzed in Section 3.16 of this environmental impact report (EIR).

The analysis in this section relies on the Cultural Resource Inventory Report for the Pacific Project (Cultural Resources Report) prepared by Dudek in December, 2022. The cultural resources report included a record search, literature review, correspondence with Native American contacts, and a field survey. The analysis also considers the California Environmental Quality Act (CEQA) Guidelines Appendix G and applicable state and local regulations, including the City of San Marcos (City) General Plan. The Cultural Resources Report is included as Appendix D to this EIR.

Table 3.4-1 summarizes the project- and cumulative-level cultural resources impacts, by threshold.

**Table 3.4-1. Cultural Resources Summary of Impacts**

| Threshold of Significance  | Project-Level Impact    | Cumulative-Level Impact | Significance Determination                           |
|--|-------------------------|-------------------------|--|
| #1 – Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.      | No Impact               | No Impact               | No Impact  |
| #2 – Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. | Potentially Significant | Less than Significant   | Less Than Significant with MM-TCR-1 through MM-TCR-4 |
| #3 – Disturb any human remains, including those interred outside of dedicated cemeteries.                              | Potentially Significant | Less than Significant   | Less Than Significant with MM-TCR-1 through MM-TCR-4 |

### 3.4.1 Existing Conditions

This section provides information on the cultural setting of the project site, as well as information on the research methodology used to prepare the Cultural Resources Report for the proposed project. Additional detail can be found in Appendix D of this EIR.

The project area of potential effect (APE), as analyzed in the Cultural Resources Report, includes the entire 33.2-acre project site, which is located in the City of San Marcos, County of San Diego, and is comprised of Assessor's Parcel Numbers 219-222-01, 219-222-02, 219-222-03, and 219-222-04. The project APE is located at the northwest corner of South Las Posas Road and Linda Vista Drive and is surrounded by light industrial uses. The property is mapped on Section 16 of Township 12 South, Range 3 West on the United States Geological Survey 7.5' San Marcos Quadrangle.

## Methodology

### South Coastal Information Center Records Search

Dudek requested a records search from the South Coastal Information Center (SCIC) for the project APE and a 1-mile buffer on March 13, 2021. SCIC responded with the results of the records search for a 1-mile radius around the project APE on March 16, 2021. The records search revealed that 69 previous cultural resources studies have been completed within 1-mile of the project APE (Appendix D). Seven of these previous studies intersect the current project APE. One of the previous studies completed consisted of a records search, archival review, and a pedestrian survey of the entire current project APE. This study identified no cultural resources within the project APE.

The SCIC records search also revealed that no cultural resources have been recorded within the project APE. The records search did identify 19 cultural resources and two historic addresses within 1-mile of the project APE (see Table 2, Resources within 1-mile of project APE, in Appendix D). The closest resources to the project APE are P-33-011663 and P-33-012735, both consisting of highly disturbed prehistoric artifact scatters located 0.4 miles from the project APE.

### Archival Research

In addition to the SCIC records search, Dudek conducted an online review of historic aerial photographs of the project APE and general vicinity, to help determine the possible development and land use of the project APE in the past. The historic aerial photographs available from the website HistoricAerials.com by Nationwide Environmental Title Research, LLC, demonstrates that development of the area surrounding the project APE started after 1967 (Appendix D). By 1978, dirt roads traverse the project APE. The 1982 aerial photograph shows some clearing and leveling in the northeast corner of the project APE. The 1989 aerial photograph shows that the eastern border of the project APE was leveled and cleared. The review of the historic aerial images demonstrates that, besides unofficial dirt roads and some limited clearing, there has been no development of the project APE.

### Native American Heritage Commission and Native American Outreach Letters

Dudek requested a Native American Heritage Commission (NAHC) search of the Sacred Lands File (SLF) on March 12, 2021, for the project APE and a 1-mile buffer. The SLF consists of a database of known Native American resources. These resources may not be included in Southern California Indian Center database. The NAHC replied on March 24, 2021, and reported that the SLF did not identify any known Native American cultural resources within the project APE or the surrounding 1-mile buffer (Appendix D). The NAHC additionally provided a list of Native American tribes and individuals/organizations with traditional geographic associations that might have knowledge of cultural resources in this area.

Outreach letters were mailed on March 30, 2021, to all Native American group representatives included on the NAHC contact list (Appendix D). These letters attempted to solicit additional information relating to Native American resources that may be impacted by the project. Native American representatives were requested to define a general area where known resources intersect the project APE. To date, two responses have been received. The first response is from the Rincon Band of Luiseño Indians stating the project site is located within the Band's specific Area of Historic Interest, and requests a survey of the property, a professional tribal monitor during the survey, a copy of the final study for review and comment, and request for further consultation with the City. The second response is from the Viejas Band of Kumeyaay Indians, stating the project site has cultural significance or ties to the Kumeyaay Nation and recommends notifying the San Pasqual Band of Mission Indians, requests all National

Environmental Policy Act/CEQA/Native American Graves Protection and Repatriation Act laws be followed, and requests immediate contact of San Pasqual Band of Mission Indians on any changes or inadvertent discoveries.

In compliance with Assembly (AB) Bill 52 and Senate Bill (SB) 18, the City, as lead agency, is responsible for conducting government to government consultation with pertinent tribal entities. At the time of circulation for public review of this EIR, consultation is ongoing. This EIR will be revised to include information obtained through consultation as it becomes available.

#### Intensive Pedestrian Survey

Dudek archaeologist David Faith conducted a pedestrian survey of the project APE on March 23, 2021. The project APE was undeveloped but surrounded by numerous industrial buildings. Portions of the project APE have been previously disturbed, as evidenced by the presence of several dirt roads with deep ruts and numerous well-worn foot paths. There are also several dirt mound disturbances in the northern section of the project APE, adjacent to La Mirada Drive. There are many small, undulating knolls throughout the project APE but the terrain largely slopes downhill to the southeast. There is a pocket of dense vegetation in the northeastern corner of the project APE, with numerous bushes greater than 6 feet high and thick coastal scrub. The survey transects through the thickest vegetation were conducted in a non-linear manner. There is also a seasonal north-south trending drainage ditch in the southern portion of the project APE, adjacent South Las Posas Road. Outside of the thick vegetation and drainage, ground visibility throughout the project APE is optimal. Modern debris from illegal dumping is visible throughout the project APE with the bulk of the debris located closer to the surrounding roads. The pedestrian survey was conducted utilizing formal transects at 15-meter intervals, except as mentioned above. Deviations from transects also occurred to inspect exposed sediments and animal burrows throughout the project APE. The pedestrian survey did not identify any cultural resources within the project APE.

## 3.4.2 Regulatory Setting

The following section provides a general description of the applicable regulatory requirements pertaining to cultural resources, including federal, state, and local guidelines.

### Federal

#### National Historic Preservation Act

The National Historic Preservation Act established the National Register of Historic Places (NRHP) program under the Secretary of the Interior. The National Historic Preservation Act authorized funding for state programs with provision for pass-through funding and participation by local governments, created an Advisory Council on Historic Preservation, and established the Section 106 review process for protecting historic resources. The goal of the Section 106 review process is to offer protection to sites that are determined eligible for listing in the NRHP. The National Historic Preservation Act provides the legal framework for most state and local preservation laws.

#### Traditional Cultural Properties (Native American Heritage Values)

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project. Also,

potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties in discussions of cultural resource management performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), “Traditional” in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community’s historically rooted beliefs, customs, and practices.

## State

### California Register of Historic Resources (Public Resources Code Section 5020 et seq.)

In California, the term “historical resource” includes, but is not limited to, “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (California Public Resources Code [PRC] Section 5020.1[j]). In 1992, the California legislature established the California Register of Historic Resources (CRHR) “to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following NRHP criteria (PRC Section 5024.1[c]):

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

Resources less than 50 years old are not considered for listing in the CRHR unless it can be demonstrated that sufficient time has passed to understand the historical importance of the resource (14 CCR, Section 4852[d][2]). The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing on the NRHP are automatically listed on the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys. The State Historic Preservation Officer maintains the CRHR.

### California Points of Historic Interest

California Points of Historical Interest are buildings, structures, site or features of local (city and county) significance and have anthropological, cultural, military, political, architectural, economic, scientific/technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 are recommended by the State Historical Resources Commission are also listed in the CRHR. The criteria for designation of Points of Historical Interest are the same as those that govern the California Historic Landmarks program.

### Native American Historic Cultural Sites (PRC 5097 et seq.)

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

### California Environmental Quality Act

Under CEQA, a project may have a significant effect on the environment if it may cause “a substantial adverse change in the significance of an historical resource” (PRC Section 21084.1; CEQA Guidelines Section 15064.5[b]). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]), it is a “historical resource” and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; CEQA Guidelines Section 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; CEQA Guidelines Section 15064.5[a]).

A “substantial adverse change in the significance of an historical resource” reflecting a significant effect under CEQA means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (CEQA Guidelines Section 15064.5[b][1]; PRC Section 5020.1[q]).

### California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County coroner has examined the remains (Section 7050.5b). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

### Health and Safety Code Section 8010-8011

This code is intended to provide consistent state policy to ensure that all California Indian human remains and cultural material are treated with dignity and respect. The code extends policy coverage to non-federally recognized tribes and federally recognized groups.

## AB 2461

The section provides procedures for private landowners to follow upon discovering Native American human remains. Landowners are encouraged to consider culturally appropriate measures if they discover Native American human remains as set forth in PRC 5097.98.

## SB 18

SB 18, approved in 2004, amends the California Civil Code and the California Government Code, requiring cities and counties to contact and consult with California Native American tribes prior to adopting or amending any general plan or specific plan, or designating land as open space in order to preserve or mitigate impacts to specified Native American places, features and objects that are located within the city's or county's jurisdiction. SB 18 also requires cities and counties to hold in strict confidence any information about the specific identity, location, character or use of these resources. In 2005, the Governor's Office of Planning and Research published Tribal Consultation Guidelines to guide cities and counties on the process of engaging in consultation in accordance with SB 18. The NAHC maintains a list of California Native American Tribes with whom cities and counties must consult pursuant to SB 18.

## AB 52

AB 52 was approved in 2014 and adds new requirements regarding consultation with California Native American Tribes and consideration of tribal cultural resources. The law went into effect on July 1, 2015, and after that date, if requested by a California Native American Tribe, lead agencies must consult prior to the release of a Negative Declaration, Mitigated Negative Declaration or Draft EIR. City of San Marcos consultation efforts in accordance with SB 18 and AB 52 are discussed in the Section 3.16, Tribal Cultural Resources, of this EIR

## Local

### City of San Marcos General Plan

#### Conservation and Open Space Element

The Conservation and Open Space Element of the City's General Plan contains several policies pertaining to the protection of archaeological and historic resources. The following goals and policies apply to the project (City of San Marcos 2012):

Policy COS-2.5: Continue to review future development proposals to ensure that cultural resources (including prehistoric, historic, paleontological, and SB 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements.

Goal COS-11: Continue to identify and evaluate cultural, historic, archaeological, paleontological and architectural resources for protection from demolition and inappropriate actions.

Policy COS-11.1: Identify and protect historic and cultural resources including individual properties, districts and sites (e.g., archaeological sites) in compliance with CEQA.

Policy COS-11.2: Prohibit the demolition or removal of a historic structure without evaluation of the condition of the structure, the cost of rehabilitation, and the feasibility of alternatives to preservation in place including but not limited to relocation, or reconstruction off-site, and/or photo-preservation.

The project's consistency with applicable General Plan goals and policies is discussed in Section 3.10 of this EIR. As detailed in Section 3.10.4, the project is consistent with the applicable General Plan goals and policies pertaining to cultural resources.

### 3.4.3 Thresholds of Significance

The determination of significance for cultural resources is based on CEQA Guidelines Appendix G. Impacts to cultural resources would be significant if the proposed project would:

Threshold No. 1: Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;

Threshold No. 2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;

Threshold No. 3: Disturb any human remains, including those interred outside of dedicated cemeteries.

### 3.4.4 Project Impact Analysis

Impacts to cultural resources that may result from ground disturbing activities associated with the proposed project are analyzed below.

***Threshold No. 1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?***

Section 15064.5 of the CEQA Guidelines defines a historical resource as one that meets one or more of the following criteria:

1. Is listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; or
2. Is included in a local register of historical resources or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code; or
3. Is determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

As identified in Section 3.4.1, no historic resources exist at the project site, in the off-site improvement areas, or immediate surroundings. Therefore, it is determined that, no impact related to historical resources would occur as a result of project implementation.

**Threshold No. 2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?**

As identified in Section 3.4.1, no cultural resources were found at the project site during the field survey or the SCIC records search. As described in the Cultural Resources Report (Appendix D), the NAHC SLF Search and intensive pedestrian survey, suggest that no known cultural resources would be impacted by the proposed project. However, construction activities associated with the project could result in potentially significant impacts to undocumented archaeological resources. In the unlikely event that archaeological resources are identified during earth moving activities associated with the project, mitigation is proposed that would require work be temporarily halted in the vicinity of the discovery (MM-TCR-1 through MM-TCR-3). The project developer would then be required to notify a qualified archaeologist, who would review the unanticipated find and evaluate the resource for CRHR listing. Accordingly, although unlikely, ground-disturbing activities on the project site associated with the project could result in a potentially significant impact (Impact CR-1), and mitigation would be required (see Section 3.4.5).

As described above, to date, two responses have been received from the Native American outreach. The first response is from the Rincon Band of Luiseño Indians stating the project site is located within the Band's specific Area of Historic Interest, and requests a survey of the property, a professional tribal monitor during the survey, a copy of the final study for review and comment, and request for further consultation with the City. The second response is from the Viejas Band of Kumeyaay Indians, stating the project site has cultural significance or ties to the Kumeyaay Nation and recommends notifying the San Pasqual Band of Mission Indians, requests all National Environmental Policy Act/CEQA/ Native American Graves Protection and Repatriation Act laws be followed, and requests immediate contact of San Pasqual Band of Mission Indians on any changes or inadvertent discoveries. Consultation between the City and tribes is ongoing.

**Threshold No. 3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**

The cultural resources field survey conducted for the proposed project did not identify any human remains or find any indications that they would be expected to be found on the project site. However, although unlikely, there is the possibility of human remains being discovered during ground disturbing activities on the project site. If remains are discovered during project construction activities, mitigation is proposed that would require work in the vicinity of the discovery be halted and procedures set forth in the PRC (Section 5097.98) and State Health and Safety Code (Section 7050.5) be followed (MM-TCR-1 through MM-TCR-4). Therefore, potential discovery of undocumented human remains on the project site could result in a potentially significant impact (Impact CR-2), and mitigation would be required (see Section 3.4.5 below).

## 3.4.5 Mitigation Measures

Implementation of mitigation measures MM-TCR-1 through MM-TCR-3 would mitigate potentially significant impacts to unknown archaeological resources (Impact CR-1) identified above in response to Threshold #2. Implementation of mitigation measures MM-TCR-1 through MM-TCR-4 would mitigate potentially significant impacts to human remains (Impact CR-2) identified above in response to Threshold #3.

**MM-TCR-1** Pre-Excavation Agreement: Prior to the issuance of a Grading Permit, or ground disturbing activities, the Applicant/Owner shall enter into a Tribal Cultural Resources Treatment and Repatriation Agreement (Pre-Excavation Agreement) with a Traditionally and Culturally Affiliated Native American Tribe (TCA Tribe), identified in consultation with the City. The purpose of the Pre-Excavation Agreement shall be to formalize protocols and procedures between the



Applicant/Owner and the TCA Tribe for the protection, treatment, and repatriation of Native American human remains, funerary objects, cultural and/or religious landscapes, ceremonial items, traditional gathering areas, and other tribal cultural resources. Such resources may be located within and/or discovered during ground disturbing and/or construction activities for the proposed project, including any additional culturally appropriate archaeological studies, excavations, geotechnical investigations, grading, preparation for wet and dry infrastructure, and other ground disturbing activities. Any project-specific Monitoring Plans and/or excavation plans prepared by the project archaeologist shall include the TCA Tribe requirements for protocols and protection of tribal cultural resources that were agreed to during the tribal consultation.

The landowner shall relinquish ownership of all non-burial related tribal cultural resources collected during construction monitoring and from any previous archaeological studies or excavations on the project site to the TCA Tribe for proper treatment and disposition per the Pre-Excavation Agreement, unless ordered to do otherwise by responsible agency or court of competent jurisdiction. The requirement and timing of such release of ownership, and the recipient thereof, shall be reflected in the Pre-Excavation Agreement. If the TCA Tribe does not accept the return of the cultural resources, then the cultural resources will be subject to curation.

**MM-TCR-2** **Construction Monitoring:** Prior to the issuance of a Grading Permit or ground disturbing activities, the Applicant/Owner or Grading Contractor shall provide written documentation (either as signed letters, contracts, or emails) to the City's Planning Division stating that a Qualified Archaeologist and Traditionally and Culturally Affiliated Native American monitor (TCA Native American monitor) have been retained at the Applicant/Owner or Grading Contractor's expense to implement the construction monitoring program, as described in the Pre-Excavation Agreement.

The Qualified Archaeologist and TCA Native American monitor shall be invited to attend all applicable pre-construction meetings with the General Contractor and/or associated subcontractors to present the construction monitoring program. The Qualified Archaeologist and TCA Native American monitor shall be present on site during grubbing, grading, trenching, and/or other ground-disturbing activities that occur in areas of native soil or other permeable natural surfaces that have the potential to unearth any evidence of potential archaeological resources or tribal cultural resources. In areas of artificial paving, the Qualified Archaeologist and TCA Native American monitor shall be present on site during grubbing, grading, trenching, and/or other ground disturbing activities that have the potential to disturb more than six inches below the original pre-project ground surface to identify any evidence of potential archaeological or tribal cultural resources. No monitoring of fill material, existing or imported, will be required if the General Contractor or developer can provide documentation to the satisfaction of the City that all fill materials being utilized at the site are either: 1) from existing commercial (previously permitted) sources of materials; or 2) are from private or other non-commercial sources that have been determined to be absent of tribal cultural resources by the Qualified Archaeologist and TCA Native American monitor.

The Qualified Archaeologist and TCA Native American monitor shall maintain ongoing collaborative coordination with one another during all ground disturbing activities. The requirement for the construction monitoring program shall be noted on all applicable construction documents, including demolition plans, grading plans, etc. The Applicant/Owner or Grading Contractor shall provide written

notice to the Planning Division and the TCA Tribe, preferably through e-mail, of the start and end of all ground disturbing activities.

Prior to the release of any grading bonds, or prior to the issuance of any project Certificate of Occupancy, an archaeological monitoring report, which describes the results, analysis, and conclusions of the construction monitoring shall be submitted by the Qualified Archaeologist, along with any TCA Native American monitor's notes and comments received by the Qualified Archaeologist, to the Planning Division Manager for approval. Once approved, a final copy of the archaeological monitoring report shall be retained in a confidential City project file and may be released, as a formal condition of Assembly Bill (AB) 52 consultation, to Rincon Band of Luiseño Indians, San Pasqual Band of Mission Indians, or any parties involved in the project specific monitoring or consultation process. A final copy of the report, with all confidential site records and appendices, will also be submitted to the South Coastal Information Center after approval by the City.

MM-TCR-3 **Unanticipated Discovery Procedures:** Both the Qualified Archaeologist and the TCA Native American monitor may temporarily halt or divert ground disturbing activities if potential archaeological resources or tribal cultural resources are discovered during construction activities. Ground disturbing activities shall be temporarily directed away from the area of discovery for a reasonable amount of time to allow a determination of the resource's potential significance. Isolates and clearly non-significant archaeological resources (as determined by the Qualified Archaeologist, in consultation with the TCA Native American monitor) will be minimally documented in the field. All unearthed archaeological resources or tribal cultural resources will be collected, temporarily stored in a secure location (or as otherwise agreed upon by the Qualified Archaeologist and the TCA Tribe), and repatriated according to the terms of the Pre-Excavation Agreement, unless ordered to do otherwise by responsible agency or court of competent jurisdiction.

If a determination is made that the archaeological resources or tribal cultural resources are considered potentially significant by the Qualified Archaeologist, the TCA Tribe, and the TCA Native American monitor, then the City and the TCA Tribe shall determine, in consultation with the Applicant/Owner and the Qualified Archaeologist, the culturally appropriate treatment of those resources.

If the Qualified Archaeologist, the TCA Tribe, and the TCA Native American monitor cannot agree on the significance or mitigation for such resources, these issues will be presented to the Planning Division Manager for decision. The Planning Division Manager shall make a determination based upon the provisions of CEQA and California Public Resources Code Section 21083.2(b) with respect to archaeological resources and California Public Resources Section 21704 and 21084.3 with respect to tribal cultural resources, and shall take into account the religious beliefs, cultural beliefs, customs, and practices of the TCA Tribe.

All sacred sites, significant tribal cultural resources, and/or unique archaeological resources encountered within the project area shall be avoided and preserved as the preferred mitigation. If avoidance of the resource is determined to be infeasible by the City as the Lead Agency, then the City shall require additional culturally appropriate mitigation to address the negative impact to the resource, such as, but not limited to, the funding of an ethnographic study and/or a data recovery plan, as determined by the City in consultation with the Qualified Archaeologist and the TCA Tribe. The TCA Tribe shall be notified and consulted regarding the determination and implementation of culturally appropriate mitigation and the drafting and finalization of any ethnographic study and/or

data recovery plan, and/or other culturally appropriate mitigation. Any archaeological isolates or other cultural materials that cannot be avoided or preserved in place as the preferred mitigation shall be temporarily stored in a secure location on site (or as otherwise agreed upon by the Qualified Archaeologist and TCA Tribe), and repatriated according to the terms of the Pre-Excavation Agreement, unless ordered to do otherwise by responsible agency or court of competent jurisdiction. The removal of any artifacts from the project site will be inventoried with oversight by the TCA Native American monitor.

If a data recovery plan is authorized as indicated above and the TCA Tribe does not object, then an adequate artifact sample to address research avenues previously identified for sites in the area will be collected using professional archaeological collection methods. If the Qualified Archaeologist collects such resources, the TCA Native American monitor must be present during any testing or cataloging of those resources. Moreover, if the Qualified Archaeologist does not collect the cultural resources that are unearthed during the ground disturbing activities, the TCA Native American monitor may, at their discretion, collect said resources for later reburial or storage at a local curation facility, as described in the Pre-Excavation Agreement.

In the event that curation of archaeological resources or tribal cultural resources is required by a superseding regulatory agency, curation shall be conducted by an approved local facility within San Diego County and the curation shall be guided by California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections. The City shall provide the Applicant/Owner final curation language and guidance on the project grading plans prior to issuance of the grading permit, if applicable, during project construction. The Applicant/Owner shall be responsible for all repatriation and curation costs and provide to the City written documentation from the TCA Tribe or the curation facility, whichever is most applicable, that the repatriation and/or curation have been completed.

MM-TCR-4 Human Remains: As specified by California Health and Safety Code Section 7050.5, if human remains, or remains that are potentially human, are found on the project site during ground disturbing activities or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the San Diego County Medical Examiner's Office by telephone. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the Qualified Archaeologist and/or the TCA Native American monitor) shall occur until the Medical Examiner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98.

If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected (as determined by the Qualified Archaeologist and/or the TCA Native American monitor), and consultation and treatment could occur as prescribed by law. As further defined by State law, the Medical Examiner will determine within two working days of being notified if the remains are subject to his or her authority. If the Medical Examiner recognizes the remains to be Native American, and not under his or her jurisdiction, then he or she shall contact the Native American Heritage Commission by telephone within 24 hours. The Native American Heritage Commission will make a determination as to the Most Likely Descendent, who shall be afforded 48 hours from the time access is granted to the discovery site to make recommendations regarding culturally appropriate treatment.

If suspected Native American remains are discovered, the remains shall be kept in situ (in place) until after the Medical Examiner makes its determination and notifications, and until after the Most Likely Descendent is identified, at which time the archaeological examination of the remains shall only occur on site in the presence of the Most Likely Descendent. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). In the event that the Applicant/Owner and the Most Likely Descendant are in disagreement regarding the disposition of the remains, State law will apply, and the mediation process will occur with the NAHC. In the event that mediation is not successful, the landowner shall rebury the remains at a location free from future disturbance (see Public Resources Code Section 5097.98[e] and 5097.94[k]).

### 3.4.6 Conclusion

Implementation of the proposed project would not impact any identified archaeological resources, historical resources, or any known human remains interred outside a formal cemetery. However, based upon the analysis presented in Section 3.4.4, the potential exists for impacts to unknown cultural resources resulting from implementation of the proposed project.

These potentially significant impacts to archaeological resources and human remains would be mitigated to below a level of significance through implementation of mitigation measures MM-TCR-1 through MM-TCR-4. Specifically, implementation of mitigation measures MM-TCR-1 through MM-TCR-3 provide for the presence of archaeological and Native American monitors during ground disturbing activities that would be able to identify any previously unidentified cultural resources and to prevent inadvertent disturbance of any intact cultural deposits that may be present. Should any resources be identified, implementation of mitigation measure MM-TCR-4 would ensure proper handling and treatment of such resources by providing for a proper evaluation to determine whether additional archaeological work is necessary.

Potential impacts to human remains would be mitigated through implementation of mitigation measures MM-TCR-1 through MM-TCR-4, which include the requirement that any remains uncovered during ground disturbing activities shall not be further disturbed until the San Diego County Coroner has determined origins of the remains and final treatment has been agreed to with input of Native American Tribes as necessary. With incorporation of these mitigation measures, potential impacts to cultural resources associated with the proposed project would be reduced to a level of less than significant.

## 3.5 Energy

This section describes the existing setting of the project site with respect to energy use and conservation, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Pacific Specific Plan Project (proposed project).

Appendix G and Appendix F of the California Environmental Quality Act Guidelines require that an environmental impact report (EIR) discuss the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy, to ensure that energy implications are considered in project-related decision-making processes. As such, this section analyzes the energy impacts of the proposed project. Specifically, this section summarizes the existing conditions in the project area, discusses the regulatory framework, and discloses estimated energy use during the construction and operational phases of the proposed project. This analysis considers the electricity, natural gas, and transportation fuel (petroleum) demand of the proposed project.

Information in this section is based on the proposed project's Air Quality and Greenhouse Gas (GHG) Emissions Technical Report (February 2023), prepared by Dudek, which is included as Appendix B of this EIR.

Table 3.5-1 summarizes the project- and cumulative-level energy impacts, by threshold.

**Table 3.5-1. Energy Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 1 – Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2 – Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.   | Less than Significant | Less than Significant   | Less than Significant      |

### 3.5.1 Existing Conditions

The environmental setting for the proposed project related to electricity, natural gas, and petroleum, including associated service providers, supply sources, and estimated consumption, is discussed below. In summary, in 2019 (the latest calendar year for which data is uniformly available for all three types of energy sources), California's estimated annual energy use included the following:

- Approximately 250,379 gigawatt-hours of electricity (EIA 2020a)
- Approximately 21.5 billion therms of natural gas (EIA 2021)
- Approximately 28.7 billion gallons of petroleum (EIA 2020b)

#### Electricity

According to the U.S. Energy Information Administration, California used approximately 250,379 gigawatt-hours of electricity in 2019 (EIA 2020a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. By sector in 2017, commercial uses utilized 46% of the state's electricity, followed by

35% for residential uses, and 19% for industrial uses (EIA 2019). Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2020b).

San Diego Gas & Electric (SDG&E) provides electric services to 3.6 million customers through 1.4 million electric meters located in a 4,100-square-mile service area that includes San Diego County (County) and southern Orange County (SDG&E 2022). SDG&E is a subsidiary of Sempra Energy and would provide electricity to the proposed project. According to the California Public Utilities Commission (CPUC), SDG&E customers consumed approximately 19,169 million kilowatt-hours (kWh) of electricity in 2015 (CPUC 2016).

SDG&E receives electric power from a variety of sources. According to the California Energy Commission (CEC) Biennial Renewable Portfolio Standard Program Update, about 40% of SDG&E's power came from eligible renewable energy sources in 2020, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2022).

Based on recent energy supply and demand projections in California, statewide annual peak electricity demand is projected to grow an average of 3,333 gigawatt-hours per year through 2030, or 1.2% annually. In San Diego County, the CEC reported an annual electrical consumption of approximately 19.0 billion kWh in 2019, with 12.4 billion kWh for non-residential use and 6.7 billion kWh for residential use (CEC 2018).

#### Natural Gas

CPUC regulates natural gas utility service for approximately 10.8 million customers who receive natural gas from Pacific Gas & Electric, Southern California Gas (SoCalGas), SDG&E, Southwest Gas, and several smaller natural gas utilities. CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage (CPUC 2022). SDG&E provides natural gas service to the counties of San Diego and Orange and would provide natural gas to the proposed project. SDG&E is a wholesale customer of SoCalGas and currently receives all of its natural gas from the SoCalGas system (CPUC 2022).

CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. California gas utilities may soon also begin receiving biogas into their pipeline systems (CPUC 2022).

In 2017, California customers received 38% of their natural gas supply from basins located in the Southwest, 27% from Canada, 27% from the Rocky Mountains, and 8% from basins located within California (CPUC 2022). Natural gas from out-of-state production basins is delivered into California through the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Southern Trails, and Mojave Pipeline. The North Baja–Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers it through California into Mexico. The Federal Energy Regulatory Commission regulates the transportation of natural gas on interstate pipelines, and CPUC often participates in Federal Energy Regulatory Commission regulatory proceedings to represent the interests of California natural gas consumers (CPUC 2022).

Most of the natural gas transported through interstate pipelines, as well as some California-produced natural gas, is delivered through the Pacific Gas & Electric and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" natural gas pipeline system). Natural gas on the backbone

pipeline system typically is then delivered into local transmission and distribution pipeline systems or to natural gas storage fields. CPUC has regulatory jurisdiction over 100,000 miles of utility-owned natural gas pipelines, which transported 82% of the natural gas delivered to California's gas consumers in 2017 (CPUC 2022).

## Petroleum

According to the U.S. Energy Information Administration, California used approximately 681 million barrels of petroleum in 2018, with the majority (584 million barrels) used for the transportation sector (EIA 2020b). This total annual consumption equates to a daily use of approximately 1.9 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 78.4 million gallons of petroleum per day, adding up to an annual consumption of 28.7 billion gallons of petroleum. By sector, transportation sources utilize approximately 85.5% of the state's petroleum, followed by 11.1% from industrial, 2.5% from commercial, 0.9% from residential, and 0.01% from electric power uses (EIA 2018a). Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described in Section 3.5.2, below. As such, the CEC anticipates an overall decrease of gasoline demand in the state over the next decade.

## Existing Infrastructure

As discussed in Section 2.2.2, Project Characteristics, electricity and natural gas to the project site would be provided by SDG&E. Electrical facilities throughout the City of San Marcos (City) include a combination of above-ground and below-ground electrical distribution lines and utilities structures. The City's fiber-optic network is facilitated by a 72-strand fiber-optic line that runs on various streets throughout the City. All major arterials in the City have implemented fiber optics.

There are existing electrical lines and natural gas pipeline adjacent to the project site within Meyers Avenue. Additionally, there is an existing overhead pole line on La Mirada Drive between South Pacific Street and South Las Posas Road. Existing along La Mirada Drive are seven SDG&E utility poles and four AT&T poles. In addition, Cox Communications is attached to five of the SDG&E poles with their cables.

For the existing SDG&E poles, there are approximately 1,500 feet of 636 aluminum cables between South Pacific Street and South Las Posas Road. On the existing joint AT&T and SDG&E poles, there are approximately 1,500 feet of overhead cables between Pacific Street and South Las Posas Road. On the existing joint SDG&E and Cox Communications poles, there are approximately 600 feet of overhead cables on South Las Posas Road, and underground services to numerous properties on the north side of La Mirada Drive.

## 3.5.2 Regulatory Setting

Federal, state, and local agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation, the U.S. Department of Energy, and the U.S. Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, CPUC and CEC are two agencies with authority over different aspects of energy. Relevant federal, state, and local energy-related regulations are summarized below. This information helps to place the impact analysis within its proper regulatory context.

## Federal

### Infrastructure Investment and Jobs Act

On November 6, 2021, Congress passed the Bipartisan Infrastructure Deal (Infrastructure Investment and Jobs Act), a once-in-a-generation investment in our nation's infrastructure and competitiveness. This Bipartisan Infrastructure Deal will rebuild America's roads, bridges, and rails, expand access to clean drinking water, ensure every American has access to high-speed internet, tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind. The legislation will help ease inflationary pressures and strengthen supply chains by making long overdue improvements for our nation's ports, airports, rail, and roads. It will drive the creation of good-paying union jobs and grow the economy sustainably and equitably so that everyone gets ahead for decades to come. Combined with the President's Build Back Framework, it will add on average 1.5 million jobs per year for the next 10 years. It will improve transportation options for millions of Americans to reduce energy use and GHG emissions. It will increase investment in electric vehicle chargers and renewable energy production.

### Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624-63200). The National Highway Traffic Safety Administration is proposing to amend the Corporate Average Fuel Economy standards set in 2020 for passenger cars and light trucks manufactured in model years 2024-2026, so that standards would increase in stringency at a rate of 8% per year rather than the 1.5% year set previously (49 CFR Part 531). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

### Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan planning organizations adopted policies defining the social, economic, energy, and environmental values guiding transportation decisions.

### Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation, discussed above. The act authorizes highway, highway safety, transit, and other efficient surface transportation programs. The act continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of transportation decisions. The act also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of intelligent transportation systems to help improve operations and management of transportation systems and vehicle safety.



## Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased fuel efficiency standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2013). The EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program, “RFS1,” required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as “RFS2” and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green” jobs.

## State

The discussion below focuses primarily on those policies, regulations, and laws that directly pertain to energy-related resources. Refer to Section 3.7, Greenhouse Gas Emissions, of this EIR, which addresses various policies, regulations, and laws targeted to the reduction of GHG emissions that are expected to achieve co-benefits in the form of reduced demand for energy-related resources and enhanced efficiencies in the consumption of energy-related resources.

## Warren-Alquist Act

The California Legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

## State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based in part on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

## Renewable Portfolio Standard

### Senate Bill 1078 (2002)

This bill established the California Renewable Portfolio Standard Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the Renewable Portfolio Standard by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

Senate Bill (SB) 350 (2015) requires retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity

to California. This bill requires that the achievement of 100% zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

#### Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with the other state, federal, and local agencies. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

#### Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies and the use of renewable resources and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 3.7 of this EIR.

#### California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Notably, Title 24 categorizes residential buildings that are 4 or more habitable levels as high-rise residential rather than mid-rise. High-rise residential are included in the nonresidential section of Title 24 and subject to the nonresidential (not residential) code. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies.

The current Title 24, Part 6 standards, referred to as the 2019 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2020. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards will use approximately 53% less energy than those under the 2016 standards (CEC 2018). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018). The 2022 Title 24 Building Energy Efficiency Standards become effective on January 1, 2023. The 2022 standards encourage electric heat pump technology and use, establish electric-ready requirements when natural gas is installed, expand solar PV system and battery storage standards, and strengthen ventilation requirements to improve indoor air quality (CEC 2018).

Title 24 also includes Part 11, the California Green Building Standards (CALGreen). CALGreen establishes minimum mandatory standards, as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material

conservation, and interior air quality. The 2019 CALGreen standards are the current applicable standards. For nonresidential projects (which the project is subject to), some of the key mandatory CALGreen 2019 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, EV charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR Part 11).

#### Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, and conservation; public health and safety; and maintenance of a healthy economy. The CEC's 2021 Integrated Energy Policy Report discusses the state's policy goals of decarbonizing buildings, doubling energy efficiency savings, and increasing flexibility in the electricity grid system to integrate more renewable energy. Specifically for the decarbonizing of building energy, the goal would be achieved by designing future commercial and residential buildings to have their energy sourced almost entirely from electricity in place of natural gas. Regarding the increase in renewable energy flexibility, the goal would be achieved through increases in energy storage capacity within the state, increases in energy efficiency, and adjusting energy use to the time of day when the most amount of renewable energy is being generated. Over time these policies and trends would serve to beneficially reduce the project's GHG emissions profile and energy consumption as they are implemented.

#### Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2000). To improve air quality, CARB established emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the National Highway Traffic Safety Administration, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The zero-emissions vehicles program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

#### Executive Order N-79-20

EO N-79-20 (2020) sets the goal for the State that 100% of in-state sales of new passenger cars and trucks will be zero-emission by 2035. EO-N-79-20 also sets goals for transition to 100% zero emission all medium- and heavy-duty vehicles by 2045, zero emission drayage trucks by 2035, and zero emission off-road vehicles and equipment by 2035, where feasible. Among other directives to further this executive order, for passenger cars and trucks, the Governor directed CARB to develop and propose regulations requiring increasing volumes of new zero-emission vehicles sold in the State towards the target of 100% of in-state sales by 2035. The Governor also directed the Governor's Office of Business and Economic Development to develop a Zero-Emissions Vehicle Market Development Strategy, which was completed in February 2021. The executive order also directs updates and assessments to ensure zero-emission vehicle infrastructure is in place to support the levels of electric vehicle adoption required by the order.

## Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates. As codified in California Government Code, Section 65080, SB 375 requires metropolitan planning organizations (San Diego Association of Governments) to include a sustainable communities strategy in its regional transportation plan. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also a part of a bigger effort to address other development issues within the general vicinity, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

### Local

#### SDG&E Long-Term Procurement Plan

In 2009, CPUC approved SDG&E's Long-Term Procurement Plan (LTPP), which identifies how SDG&E will meet the future energy needs of customers in SDG&E's service area. The LTPP identifies several energy demand reduction targets (i.e., conservation) and goals for increasing renewable energy supplies, new, local power generation, and increased transmission capacity.

The LTPP sets a standard for acquiring 20% of SDG&E's energy mix from renewables by 2010 and 33% by 2020. The LTPP also calls for greater use of in-region energy supplies, including renewable energy installations. The LTPP states that, by 2020, SDG&E intends to achieve and maintain the capacity to generate 75% of summer peak demand energy with in-County generation. The LTPP also identifies 44% of its renewables to be generated and distributed in-region by 2020.

#### San Diego Association of Governments Regional Plan

The 2021 Regional Plan provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources (SANDAG 2021). The plan is the result of years of planning, data analysis, and community engagement to reimagine the San Diego region with a transformative transportation system, a sustainable pattern of growth and development, and innovative demand and management strategies.

The 2021 Regional Plan includes a Sustainable Communities Strategy, as required by California SB 375, for the San Diego region. This Sustainable Communities Strategy describes coordinated transportation and land use planning that exceeds the state's target for reducing per capita GHG emissions set by CARB. The state-mandated target is a 19% reduction—compared with 2005—in per capita GHG emissions from cars and light-duty trucks by 2035. The 2021 Regional Plan achieves a 20% reduction by then.

The 2021 Regional Plan also puts forth a forecasted development pattern that is driven by regional goals for sustainability, mobility, housing affordability, and economic prosperity.

#### City of San Marcos General Plan

The City's General Plan (City of San Marcos 2012) includes various policies related to reducing GHG emissions and the co-benefit of reducing energy consumption. The project's consistency with the City's General Plan is provided in Section 3.10.4, Project Impact Analysis. Applicable policies include the following:

### Land Use and Community Design Element

Policy LU-2.1: Promote compact development patterns that reduce air pollution and automobile dependence and facilitate walking, bicycling, and transit use.

Policy LU-2.3: Require the incorporation of green building practices, technologies, and strategies into development projects per code standards.

Policy LU-2.5: Promote landscaping (e.g., native, drought tolerant plants) that minimizes demands on water supply.

Policy LU-2.7: Promote the instillation of trees to reduce the urban heat-island effect and green infrastructure to reduce storm water runoff.

Policy LU-3.1: Require that new development and redevelopment incorporate connections and reduce barriers between neighborhoods, transit corridors, and activity centers within the City.

### Conservation and Open Space Element

Policy COS-4.5: Encourage energy conservation and the use of alternative energy sources within the community.

Policy COS-4.6: Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment.

### City of San Marcos Climate Action Plan

The City adopted its Climate Action Plan (CAP) on December 8, 2020 (City of San Marcos 2020). The CAP acts as a roadmap to address challenges of climate change within the City. The CAP builds on the efforts and strategies identified in the City's 2013 CAP, and establishes GHG emission reduction targets and identifies achievable, locally based actions to reduce GHG emissions from municipal and community activities. The City has included energy-reducing measures in the Climate Action Plan Consistency Review Checklist, such as electric vehicle charging stations, bicycle infrastructure, transportation demand management, reduced parking, electric or solar water heaters, photovoltaic systems, landscaping water use, and urban tree canopy.

## 3.5.3 Thresholds of Significance

The significance criteria used to evaluate the proposed project's impact on energy are based on Appendix G of the California Environmental Quality Act Guidelines (14 CCR 15000 et seq.). According to Appendix G, a significant impact would occur if development of the proposed project would do any of the following:

Threshold No. 1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Threshold No. 2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

## 3.5.4 Project Impact Analysis

***Threshold No. 1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

### Electricity

#### Construction Use

Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and HVAC) would be provided by SDG&E. The amount of electricity used during project construction would be minimal because typical demand stems from the use of electronic equipment, in addition to electrically powered hand tools.

As the electricity used for construction activities would be temporary and minimal, impacts related to electricity consumption during project construction are determined to be less than significant.

#### Operational Use

The operation of the proposed project would require electricity for multiple purposes, including cooling, lighting, appliances, and various equipment. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage.

The California Emissions Estimator Model (CalEEMod), version 2020.4.0, default values for electricity consumption for the residential land uses proposed with the project were applied, which account for the 2019 Title 24 building code (CAPCOA 2021). The electricity use for residential buildings is calculated in CalEEMod using energy intensity value (electricity use per square foot per year) assumptions, which were based on the Residential Appliance Saturation Survey. Per the CEC Impact Analysis for the 2019 Update to the California Energy Efficiency Standards for Residential and Non-Residential Buildings, the first-year savings for newly constructed, high-rise multifamily buildings are 197 gigawatt-hours of electricity, 76.6 megawatts of demand, and 0.27 million therms of gas, representing reductions from the 2016 Title 24 standard of 10.7%, 9%, and 1%, respectively (CEC 2018).

The proposed project's residential uses are estimated to have a total electrical demand of approximately 2.49 million kWh of electricity per year (see Appendix B).

The project would also implement applicable City's CAP Consistency Checklist measures that would reduce operational electricity consumption, including installing electric or solar water heater, outlined in Section 3.2, Air Quality, of this EIR. While this would increase electricity use, it would result in less natural gas use and is more efficient than heating water with natural gas as 15% of the energy is lost in the exhaust.

In summary, although electricity consumption would increase at the project site due to project implementation, the project would be required to comply with the Title 24 and the City's CAP Consistency Checklist by implementing energy-efficiency measures. Furthermore, the project will be subject to the Title 24 building code that is adopted at the time building permits are obtained and thus may be subject to a more stringent energy standard than what was assumed herein. For these reasons, electricity consumption of the proposed project would not be considered inefficient, wasteful, or unnecessary, and impacts would be less than significant.

## Natural Gas

### Construction Use

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection Petroleum. Any minor amounts of natural gas that may be consumed as a result of construction would be temporary and negligible and would not have an adverse effect on the environment; therefore, impacts are determined to be less than significant.

### Operational Use

The operation of residential units would require natural gas for space heating and to power appliances. Default natural gas usage rates in CalEEMod for the proposed land use and climate zone were used based on compliance with 2019 Title 24 standards, which is assumed within CalEEMod 2020.4.0.

The operation of the proposed project is estimated to use approximately 3.27 million thousand British thermal units of natural gas per year, which is equivalent to 32,669 therms of natural gas per year.

As previously discussed, the proposed project would be subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Prior to building permit application, the applicant would ensure that project plans would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Additionally, the proposed project would implement the City's CAP Consistency Checklist measure that reduces operational natural gas consumption via REG-GHG-5, which requires the installation of electric or solar water heaters.

In summary, although natural gas usage would increase due to project implementation, project design features would be implemented, and usage would be decreased through green building standards. For these reasons, the natural gas consumption of the proposed project would not be considered inefficient or wasteful, and impacts would be less than significant.

## Petroleum

### Construction Use

Petroleum would be consumed throughout construction of the proposed project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed that construction workers would travel to and from the project site in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during each phase of construction. CalEEMod was used to estimate construction equipment usage, and results are included in Appendix B. Based on that analysis, over all phases of construction, diesel-fueled construction equipment would operate for an estimated 23,960 hours, as summarized in Table 3.5-2.



**Table 3.5-2. Project Hours of Operation for Construction Equipment**

| Phase                 | Hours of Equipment Use |
|-----------------------|------------------------|
| Site Preparation      | 560                    |
| Grading               | 1,920                  |
| Paving                | 20,400                 |
| Building Construction | 960                    |
| Architectural Coating | 120                    |
| <b>Total</b>          | <b>23,960</b>          |

Source: Appendix B.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO<sub>2</sub>) emissions from each construction phase to gallons using conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. Construction is estimated to occur over an 18-month period (2022 through 2023) based on the construction phasing schedule. The conversion factor for gasoline is 8.78 kilograms per metric ton CO<sub>2</sub> per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO<sub>2</sub> per gallon (The Climate Registry 2021). The estimated diesel fuel use from project-related construction equipment is shown in Table 3.5-3.

**Table 3.5-3. Project Construction Equipment Diesel Demand**

| Phase                 | Equipment CO <sub>2</sub> (MT) | kg CO <sub>2</sub> /Gallon | Gallons          |
|-----------------------|--------------------------------|----------------------------|------------------|
| Site Preparation      | 16.73                          | 10.21                      | 1,638.14         |
| Grading               | 81.80                          | 10.21                      | 8,012.03         |
| Building Construction | 347.75                         | 10.21                      | 34,059.64        |
| Paving                | 20.03                          | 10.21                      | 1,961.46         |
| Architectural Coating | 2.55                           | 10.21                      | 250.08           |
| <b>Total</b>          |                                |                            | <b>45,921.34</b> |

Sources: Appendix B (pieces of equipment and equipment CO<sub>2</sub>); The Climate Registry 2021 (kg CO<sub>2</sub>/gallon).

Notes: CO<sub>2</sub> = carbon dioxide; kg = kilogram; MT = metric ton.

Fuel consumption from worker and vendor trips is estimated by converting the total CO<sub>2</sub> emissions from each construction phase to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline fueled and vendor vehicles are assumed to be diesel fueled. Calculations for total worker and vendor fuel consumption are provided in Tables 3.5-4 and 3.5-5.

**Table 3.5-4. Project Construction Worker Vehicle Gasoline Demand**

| Phase                 | Vehicle CO <sub>2</sub> (MT) | kg CO <sub>2</sub> /Gallon | Gallons          |
|-----------------------|------------------------------|----------------------------|------------------|
| Site Preparation      | 0.57                         | 8.78                       | 65.05            |
| Grading               | 1.90                         | 8.78                       | 216.82           |
| Building Construction | 447.51                       | 8.78                       | 50,968.84        |
| Paving                | 0.98                         | 8.78                       | 111.86           |
| Architectural Coating | 5.89                         | 8.78                       | 671.10           |
| <b>Total</b>          |                              |                            | <b>52,033.67</b> |

Sources: Appendix B (construction worker CO<sub>2</sub>); The Climate Registry 2021 (kg CO<sub>2</sub>/gallon).

Notes: CO<sub>2</sub> = carbon dioxide; kg = kilogram; MT = metric ton.

**Table 3.5-5. Project Construction Vendor Truck Diesel Demand**

| Phase                 | Vehicle CO <sub>2</sub> (MT) | kg CO <sub>2</sub> /Gallon | Gallons          |
|-----------------------|------------------------------|----------------------------|------------------|
| Site Preparation      | 0.40                         | 10.21                      | 39.30            |
| Grading               | 1.20                         | 10.21                      | 117.91           |
| Building Construction | 327.46                       | 10.21                      | 32,072.42        |
| Paving                | 0.79                         | 10.21                      | 77.24            |
| Architectural Coating | 0.79                         | 10.21                      | 77.24            |
|                       |                              | <b>Total</b>               | <b>32,384.11</b> |

**Sources:** Appendix B (vendor truck CO<sub>2</sub>); The Climate Registry 2021 (kg CO<sub>2</sub>/gallon).

**Notes:** CO<sub>2</sub> = carbon dioxide; kg = kilogram; MT = metric ton.

As shown in Tables 3.5-3 through 3.5-5, implementation of the proposed project is estimated to consume a total of 130,339 gallons of petroleum from off-road equipment and worker vehicle and vendor truck trips during the construction phase.

The proposed project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Further, the petroleum consumed related to construction would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. Therefore, because petroleum use during project construction would be temporary and minimal and would not be wasteful or inefficient, impacts are determined to be less than significant.

### Operational Use

The majority of fuel consumption resulting from the operational phase of the proposed project would be attributable to the use of resident motor vehicles traveling to and from the project site, as well as fuels used for alternative modes of transportation that may be used by residents.

Petroleum fuel consumption associated with motor vehicles traveling to and from the project site is a function of VMT as a result of operation. As shown in Appendix B, the annual VMT attributable to the proposed project is expected to be approximately 7,692,187 VMT per year.

Similar to construction worker and vendor trips, fuel consumption was estimated by converting the total CO<sub>2</sub> emissions from each land use type to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. Based on the annual fleet mix provided in CalEEMod, 80% of the fleet range from light-duty to medium-duty vehicles and motorcycles were assumed to run on gasoline. The remaining 20% of vehicles represent medium-heavy duty to heavy-duty vehicles and buses/recreational vehicles, which were assumed to run on diesel.

Calculations for annual mobile-source fuel consumption are provided in Table 3.5-6.

**Table 3.5-6. Mobile Source Fuel Consumption - Operation**

| Fuel         | Vehicle MT CO <sub>2</sub> | kg CO <sub>2</sub> /Gallon | Gallons           |
|--------------|----------------------------|----------------------------|-------------------|
| Gasoline     | 2,002.10                   | 8.78                       | 228,029.35        |
| Diesel       | 489.04                     | 10.21                      | 47,897.70         |
| <b>Total</b> |                            |                            | <b>275,927.05</b> |

**Sources:** Appendix B (mobile source CO<sub>2</sub>); The Climate Registry 2021 (kg CO<sub>2</sub>/gallon).

**Notes:** CO<sub>2</sub> = carbon dioxide; kg = kilogram; MT = metric ton.

As shown in Table 3.5-6, mobile sources associated with the project would result in approximately 228,029 gallons of gasoline per year and 47,898 gallons of diesel consumed per year beginning in 2024. This is a conservative estimate since it does not account for usage of electric vehicles.

By comparison, California as a whole consumes approximately 28.7 billion gallons of petroleum per year (EIA 2018b). Within San Diego County, the estimated petroleum use in 2023 would be 1.7 billion gallons per year (CARB 2021).

Over the lifetime of the project, the fuel efficiency of the vehicles being used by residents is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. As discussed under Section 3.5.2, there are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California (CARB 2017). Additionally, in response to SB 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 15% by the year 2020 and 19% by the year 2035 for light-duty passenger vehicles in the San Diego Association of Governments planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation (CARB 2019). As such, petroleum use is anticipated to decrease over time due to advances in fuel economy.

The project site is located approximately 1 mile from the Sprinter station, which provides light rail access into the nearby cities of Escondido, Vista, and Oceanside, and bus service is located in front of the project site. Additionally, the Sprinter connects to the Surfliner and Coaster routes, which provide north-south access to Los Angeles County, Orange County, and the City of San Diego. Furthermore, the proposed project would implement applicable measures in Title 24 and the City's 2020 CAP Consistency Checklist (see Appendix B), including installing electric vehicle charging stations, installing bicycle infrastructure, implementing a Transportation Demand Management plan, and reducing parking near transit. These measures would further reduce VMT and petroleum consumption from operation, increase access to transit, and encourage alternative modes of transportation.

In summary, although the proposed project would increase petroleum use during operation, the use would be a small fraction of the statewide use and, due to efficiency increases, diminish over time. Additionally, a minimum of 5% of parking spaces required would be equipped with EV charging stations or as otherwise required by CALGreen, whichever is more significant. Furthermore, the inclusion of installing bicycle infrastructure, and increased access to transit would help reduce petroleum-based fuels consumption. Given these considerations, petroleum consumption associated with the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

**Threshold No. 2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

The proposed project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR, Part 6). Part 6 of Title 24 establishes energy efficiency standards for residential and non-residential buildings constructed in California in order to reduce energy demand and consumption. The proposed project would also be subject to Part 11 of Title 24, also known as the CALGreen building standards. These were adopted into the City's building design criteria. Furthermore, the project would be consistent with the City's CAP Consistency Checklist measures through its installing electric vehicle charging stations, installing bicycle infrastructure, implementing a Transportation Demand Management plan, installing electric or solar water heaters, reducing landscaping water use, and planting trees that would further reduce operational energy use. The proposed project would be built and operated in accordance with all existing, applicable regulations at the time of construction. For these reasons stated, the proposed project would result in a less than significant impact associated with the potential to conflict with energy standards and regulations.

### 3.5.5 Mitigation Measures

Impacts would be less than significant, and no mitigation measures are required.

### 3.5.6 Conclusion

The proposed project would comply with regulatory requirements and would implement project design features in the City's CAP Consistency Checklist that would reduce operational energy consumption. For example, the project would be required to install electric vehicle charging stations, install electric or solar water heaters, implement a Transportation Demand Management plan, reduce landscaping water use, and plant trees. Furthermore, the project's location as an infill development and its close proximity to resident services and transit will inherently result in less VMT and petroleum use compared to a sprawling project. As such, the proposed project would not result in the wasteful or inefficient use of electricity, and impacts would be less than significant.

Additionally, the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy consumption, including the City's General Plan policies and City's CAP Consistency Checklist. As a result, impacts would be less than significant.

## 3.6 Geology and Soils

This section describes the existing geological setting of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, including seismic activity, liquefaction, landslides, loss of topsoil, soil erosion, soil stability and soil expansion, and identifies mitigation measures related to implementation of the proposed project.

Preparation of this Environmental Impact Report (EIR) Section relied on information provided in the Revised Preliminary Geotechnical Evaluation prepared for the proposed project by GeoTek Inc., dated November 2022, and the Paleontological Resources Inventory Report prepared for the proposed project by Dudek in December 2022. The Revised Preliminary Geotechnical Evaluation is included as Appendix F to this EIR, and the Paleontological Resources Inventory Report is included as Appendix O to this EIR.

A summary of the project- and cumulative-level geology and soils analysis, by threshold, is provided in Table 3.6-1.

**Table 3.6-1. Geology and Soils Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 1 - Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42. | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2 – Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 3 – Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic-related ground failure, including liquefaction.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4 – Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 5 – Result in substantial soil erosion or the loss of topsoil.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 6 – Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 7 – Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.   | Less than Significant | Less than Significant   | Less than Significant      |

**Table 3.6-1. Geology and Soils Summary of Impacts**

| Threshold of Significance   | Project-Level Impact                               | Cumulative-Level Impact | Significance Determination |
|---|--|-------------------------|----------------------------|
| No. 8 Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | Less than Significant                              | Less than Significant   | Less than Significant      |
| No. 9 Directly or indirectly destroy a unique paleontological resource or site unique geologic feature?   | Less than Significant with Mitigation Incorporated | Less than Significant   | Less than Significant      |

### 3.6.1 Existing Conditions

The project site is located in the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges province is one of the largest geomorphic units in western North America. This province varies in width from about 30 to 100 miles. It is approximately bounded on the west by the Pacific Ocean, on the south by the Gulf of California, on the north by the Transverse Ranges, and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zones trend northwest-southeast and are found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province. The Newport-Inglewood-Rose Canyon Fault zone meanders the southwest margin of the province but can be more appropriately defined by the Pacific Ocean. No faults are shown in the immediate project site vicinity (Appendix F).

#### Soils

A brief description of the earth materials encountered during subsurface exploration is presented in the following sections. Based on field observations and review of published geologic maps, the project site is locally underlain by recent alluvium and Santiago Formation bedrock.

A field study was conducted on September 29, 2020, and consisted of a site reconnaissance, excavation of geotechnical hollow stem auger borings B-3 through B-6 to depths of about 19.5 feet below grade and 2 percolation test borings P-1 and P-2 to depths of about 3 feet below grade. The borings were drilled with a truck mounted rubber tire CME-75 drilling rig and included collection of bulk and relatively undisturbed driven soil samples for subsequent laboratory testing.

#### Undocumented Fill (Not Mapped)

Undocumented fill soils were observed on-site as sporadic end-dump piles from illegal dumping (Appendix F). These soils are not considered suitable for support of structural site improvements but may be re-used as engineered fill if properly processed and placed.

#### Alluvium (Map Symbol Qa1)

The most recent regional geologic map reviewed showed the geology (Appendix F) for the eastern portion of the area along South Los Posas Road to be alluvial deposits; however, based on the site evaluation, alluvium appears to be

limited to a smaller extent along a natural drainage swale along South Los Posas Road. As encountered in boring B-6, the alluvium generally consisted of silty fine sands.

### Tertiary Santiago Formation (Map Symbol Tsa)

The most recently dated regional geologic map showing the overall site geology (Appendix F) indicates Santiago Formation sedimentary bedrock at the surface on the western majority of the project site; however, based on the project site evaluation the Santiago Formation appears to be near the surface across most of the project site. As encountered in the borings, Santiago Formation was observed as a dark brown to black clay over sandstone.

## Surface Water and Groundwater

### Surface Water

Surface water was not observed during the project site visit. If encountered during earthwork construction, surface water on this site is likely the result of precipitation. Overall site area drainage is in a southeast direction.

### Groundwater

A static groundwater table was not encountered during drilling operations at the project site. Excavations B-5 and B-6 appear to have encountered perched water at a depth of approximately 19 and 15 feet (respectively) and cuttings in B-4 at a depth of 17 feet suggest a perch groundwater. Based on the anticipated depth of removals, groundwater is not anticipated to be a factor in site development. Localized perched groundwater may be present but is also not anticipated to be a factor in site development with the exception that seasonal water levels are likely to impact stormwater management (Appendix F).

## Earthquake Hazards

### Surface Fault Rupture

The geologic structure of the entire southern California area is dominated mainly by northwest trending faults associated with the San Andreas system. The project site is in a seismically active region. No active or potentially active fault is known to exist at the project site nor is the project site situated within an "Alquist-Priolo" Earthquake Fault Zone or a Special Studies Zone (Appendix F). No faults transecting the project site were identified on the readily available geologic maps. The nearest known active fault is the Newport Inglewood-Rose Canyon fault located about 11 miles southwest of the project site.

### Liquefaction/Seismic Settlement

The factors known to influence liquefaction potential include soil type and grain size, relative density, groundwater level, confining pressures, and both intensity and duration of ground shaking. In general, materials that are susceptible to liquefaction are loose, saturated granular soils having low fines content under low confining pressures.

Due to the general dense to very dense nature of underlying shallow bedrock, as well as planned fill placement, liquefaction potential and seismic settlement potential is considered negligible provided remedial grading recommendations presented in the Revised Preliminary Geotechnical Evaluation are completed (Appendix F).

### Other Seismic Hazards

Due to the relatively flat nature of the project site, the potential for landslides and rockfall is considered negligible. The project site is located in a zone with “zero susceptibility” to landslides (Appendix F).

In addition, the potential for secondary seismic hazards such as seiche and tsunami is remote due to site elevation and distance from an open body of water.

### Paleontological Resources

Due to the existing conditions of the site, and the project location surrounded by urban uses, paleontological resources are not anticipated to be unearthed within the project’s area of potential effect. However, the project site is underlain by the Santiago Formation, which has high paleontological sensitivity. The preliminary geotechnical evaluation prepared for the proposed project did not identify any unique geologic features on the project site. To determine the paleontological sensitivity of the project site, Dudek performed a paleontological resources inventory and preconstruction survey for the project to comply with the California Environmental Quality Act (CEQA) and County of San Diego’s Guidelines. The inventory consisted of a Natural History Museum of San Diego (SDNHM) paleontological records search and a review of geological mapping and geological and paleontological literature. The results of the paleontological records search were negative for paleontological resources within the project site; however, the SDNHM reported four fossil localities within a 1-mile radius of the project site, from geological units that do not underly the project site (Appendix O).

## 3.6.2 Regulatory Setting

This section describes the federal, state, and local regulations related to geology and soils.

### Federal

#### Federal Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 provides a set of mitigation plan requirements that encourage state and local jurisdictions to coordinate disaster mitigation planning and implementation. The Act also encourages states to complete a Natural Mitigation Plan. California’s relevant and updated State Hazard Mitigation Plan was adopted and approved by the Federal Emergency Management Agency Region IX in 2007. In accordance with this Act, the County of San Diego prepared its Multi-Jurisdictional Hazard Mitigation Plan, which is discussed in more detail below.

#### Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.



### United States Geological Survey Landslide Hazard Identification Program

The United States Geological Survey, in fulfillment of the requirements of Public Law 106-113, created the National Landslide Hazards Program to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The Federal Emergency Management Agency is the responsible agency for the long-term management of natural hazards.

### International Building Code

The International Building Code (IBC) is a model building code developed by the International Code Council that provides the basis for the California Building Code (CBC). The purpose of the IBC is to provide minimum standards for building construction to ensure public safety, health, and welfare. Prior to the creation of the IBC, several different building codes were used; however, by the year 2000, the IBC had replaced these previous codes. The IBC is updated every 3 years.

### State

#### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act mitigates the hazard of surface fault rupture by regulating structures designated for human occupancy near active faults. As required by the Act, the California Geological Survey has delineated Earthquake Fault Zones along known active faults in California.

#### California Geologic Survey

The California Geologic Survey provides guidance with regard to seismic hazards. The California Geologic Survey's Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California (2008), provides guidance for the evaluation and mitigation of earthquake-related hazards for projects located within certain designated zones.

#### California Surface Mining and Reclamation Act

Enacted to promote conservation and protection of significant mineral deposits, the California Surface Mining and Reclamation Act requires cities address the significant aggregate resources classified by the State Geologist and designated by the State Mining and Geology Board in their General Plans. The Act ensures that significant aggregate resources are recognized and considered before land use decisions are made that may compromise the availability of these resources.

#### Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was enacted in 1997 to protect the public from strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This Act requires the State Geologist to map areas subject to seismic hazard. Before a development permit may be granted for projects located in designated areas, a geotechnical evaluation of the site must be prepared, and appropriate mitigation measures incorporated into the project design. Additionally, the Act requires a Standardized Natural Hazards Disclosure Statement form be completed by real estate sellers if a property is within one of the designated natural hazards areas.

### Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act (effective June 1, 1998), requires “sellers of real property and their agents provide prospective buyers with a ‘Natural Hazard Disclosure Statement’ when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone.” The Seismic Hazards Mapping Act, discussed above, specifies the following two ways this disclosure can be made:

- The Local Option Real Estate Transfer Disclosure Statement as provided in Section 1102.6a of the Civil Code
- The Natural Hazard Disclosure Statement as provided in Section 1103.2 of the Civil Code

The Local Option Real Estate Disclosure Statement can be substituted for the Natural Hazards Disclosure Statement if it contains substantially the same information and substantially the same warning as the Natural Hazards Disclosure Statement. Both the Alquist-Priolo Act and the Seismic Hazards Mapping Act require that real estate agents, or sellers of real estate acting without an agent, disclose to prospective buyers that the property is located in an Alquist-Priolo Earthquake Fault Zone or Seismic Hazard Mapping Zone.

### California Uniform Building Code

The California Building Standards Code is codified in Title 24 of the California Code of Regulations. Part 2 of the California Uniform Building Code specifies standards for geologic and seismic hazards, other than surface faulting. Chapter 23 of the California Uniform Building Code addresses seismic safety and includes regulations for earthquake-resistant design and construction. The 2022 Triennial Edition of the California Building Standards Code went into effect January 1, 2023 (California Building Standards Commission 2020).

### Local

#### County of San Diego Multi-Jurisdictional Hazard Mitigation Plan

To comply with the Disaster Mitigation Act of 2000, the County of San Diego prepared the Multi- Jurisdictional Hazard Mitigation Plan (Plan) in 2004, revised in 2017. The Plan serves as both a county-wide plan and a plan for local jurisdictions that identifies risks posed by natural and human-made disasters before a hazard event occurs. The Plan includes overall goals and objectives shared by many jurisdictions, as well as specific goals, objectives, and mitigation action items for each of the participating jurisdictions, including the City of San Marcos, developed to help minimize the effects of the specified hazards that potentially affect their jurisdiction (County of San Diego 2017).

#### San Marcos Grading Ordinance

The City’s Grading Ordinance (found in Chapter 17.32 of the City’s Municipal Code) contains regulations for the purpose of protecting public health and safety with respect to the design and construction of building sites and the development of property by grading. The ordinance sets forth rules and regulations to control excavation, grading and earthwork construction, engineering analysis of soil conditions, and the administrative procedure for issuance of grading permits, approval of grading plans, and site inspections.

## City of San Marcos General Plan

### Safety Element

The Safety Element of the San Marcos General Plan contains several policies pertaining to natural geologic hazards. The following goal and policies apply to the proposed project (City of San Marcos 2012):

Goal S-1: Reduce risks to the community from earthquakes by regulating new development and redevelopment to prevent the creation of new geologic and seismic hazards.

Policy S-1.1: Reduce the risk of impacts from geologic and seismic hazards by applying current and proper land use planning, development engineering, building construction, and retrofitting requirements.

Policy S-1.2: Investigate specific groundwater levels and geologic conditions underlying all new development or redevelopment proposals in areas where potential fault rupture, liquefaction, or other geologic hazards are suspected.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10, the project is consistent with the applicable General Plan goals and policies pertaining to geology and soils.

### 3.6.3 Thresholds of Significance

As defined in Appendix G of the CEQA Guidelines, project impacts to geological resources are considered significant if the project would:

Threshold No. 1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.

Threshold No. 2: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

Threshold No. 3: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

Threshold No. 4: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Threshold No. 5: Result in substantial soil erosion or the loss of topsoil.

Threshold No. 6: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Threshold No. 7: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

Threshold No. 8: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Threshold No. 9: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### 3.6.4 Project Impact Analysis

The proposed project area of potential effect includes the entire 33.2-acre project site. Impacts to geology and soils that may result from ground disturbing activities associated with the proposed project are analyzed below.

***Threshold No. 1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of as known fault. (Refer to Division of Mines and Geology Special Publication 42)?***

As identified in Section 3.6.1, the project site is located in tectonically active southern California. However, no Alquist-Priolo Fault Hazard Zones or other known active faults run through the project site. The closest known active fault is the Newport-Inglewood/Rose Canyon Fault, located 11 miles southwest of the project site. Based on the lack of active or potentially active faults underlying the project area, the potential for surface rupture is low and the project site would not be subject to a greater seismic risk than other locations within the region. Additionally, per the Alquist-Priolo Earthquake Fault Zoning Act, because the project site is not located in an Alquist Priolo Fault Zone, the proposed project would not place any prohibited uses (e.g., uses containing structures with a capacity of 300 people or more; uses with the potential to severely damage the environment or cause major loss of life; or specific civic uses including police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities) within an Alquist–Priolo Fault Zone. Thus, the potential for loss, injury, or death involving rupture of a known earthquake fault is considered low.

The proposed project would be required to comply with applicable CBC requirements and proposed plans would be subject to City review. For these reasons, impacts are determined to be less than significant.

***Threshold No. 2: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?***

There are no known active faults that run through the project site. The proposed project would be designed in accordance with applicable CBC criteria, including those specific to resistance to seismic shaking. Furthermore, the proposed project would be constructed in accordance with other applicable regulations, current seismic design specifications of the Structural Engineers Association of California, and applicable requirements of the State of California Occupational Safety and Health Administration. These required seismic design considerations are used to minimize structural damage in the event of ground shaking.

Additionally, the proposed project would implement all recommendations from the Revised Preliminary Geotechnical Evaluation (Appendix F), as well as any project-specific recommendations with any potential supplemental geotechnical evaluations. The Geotechnical Evaluation includes design recommendations, retaining wall design and construction recommendations, and post-construction considerations. The detailed recommendations are included in Chapter 5 of the Revised Preliminary Geotechnical Evaluation (Appendix F). The project would be constructed in compliance with the 2019 CBC and ASCE 7-16 for seismic design. The City's Development Services Department shall review and approve project design and construction to verify that the recommendations of the geotechnical evaluation

have been incorporated. With adherence to all regulations and geotechnical recommendations from the Geotechnical Evaluation conducted for the proposed project as required by the Municipal Code and CBC, impacts related to seismic ground shaking would be considered less than significant.

***Threshold No. 3: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?***

Liquefaction typically occurs when a site is subjected to strong seismic shaking, on-site soils are cohesionless, groundwater is encountered within 50 feet of the surface, and soil relative densities are less than approximately 70%. Based on the geotechnical evaluation mapping, subsurface exploration, and laboratory testing, the project site is not identified as being susceptible to liquefaction (Appendix F). No shallow groundwater was identified on-site, and soils consist of relatively dense granitic bedrock (tonalite) material. The potential for liquefaction or dynamic settlement to occur on-site is considered very low. Additionally, the project site is identified in the City's Safety Element as having "Zero Susceptibility" to liquefaction (Figure 6-1 of the City's General Plan) (City of San Marcos 2012). As such, the project site is not considered susceptible to liquefaction or significant amounts of seismic settlement.

Furthermore, the project would implement all remedial grading and drainage recommendations contained within the Revised Preliminary Geotechnical Evaluation (Appendix F), in addition to recommendations outlined in any development project-specific supplemental geotechnical report(s) in accordance with the City's Municipal Code and CBC requirements. For these reasons, implementation of the proposed project would not result in seismic-related ground failure, including liquefaction and impacts would be less than significant.

***Threshold No. 4: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?***

The project site is relatively flat, ranging in elevation from approximately 527 feet above mean sea level in the southeast portion of the project area to 551 feet above mean sea level in the northwest corner of the project site. The project site is identified in the City's Safety Element as having "Zero Susceptibility" to landslides (Figure 6-1 of the General Plan) (City of San Marcos 2012). Therefore, the project site is not considered susceptible to landslides and proposed project impacts would be less than significant.

***Threshold No. 5: Would the project result in substantial soil erosion or the loss of topsoil?***

The proposed project would be required to comply with the City's Grading Ordinance, which contains design standards and performance requirements that must be met to avoid or reduce, to an acceptable level, excessive erosion. Furthermore, in accordance with Municipal Code requirements, the proposed project would implement all recommendations pertaining to soil erosion or loss of topsoil as contained within the Revised Preliminary Geotechnical Evaluation (Appendix F), in addition to any additional recommendations from any supplemental geotechnical reports prepared for the project. For these reasons, implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

***Threshold No. 6: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

As previously described under Thresholds 3 and 4, the potential for landslides and/or liquefaction on-site is considered low. The proposed project would be required to comply with the recommendations of the Revised Preliminary Geotechnical Evaluation (Appendix F), which require that where not already removed by the proposed site grading, any topsoil or any undocumented fill encountered should be completely removed and recompacted within the limits of grading, receive additional fill as needed, and implement any other settlement-sensitive improvements as needed. Site preparation, removals, and excavation associated with the proposed project would be performed consistent with Chapter 5 of the Revised Preliminary Geotechnical Evaluation (Appendix F) and any supplemental geotechnical evaluation. In addition, grading associated with the proposed project would be accomplished under the observation and testing of the project geotechnical engineer and engineering geologist, in accordance with the requirements of the CBC, the City of San Marcos, and the County of San Diego. Areas to receive fill would be required to be properly cut and/or benched in accordance with current industry standards of practice, CBC guidelines, and the City of San Marcos requirements.

Therefore, compliance with applicable regulations and the recommendations in the Revised Preliminary Geotechnical Evaluation would ensure that the potential for unstable conditions that could result in on- or off-site, lateral spread, subsidence, liquefaction, or collapse would be less than significant.

***Threshold No. 7: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

As described in the Revised Preliminary Geotechnical Evaluation (Appendix F), the project site contains soils with a medium expansion index, and it is recommended that these soils be further evaluated prior to project construction. The proposed project would be required to implement CBC guidelines, regulations, and further recommendations to ensure that such soils are fully remediated and/or the project is designed appropriately to minimize impacts of expansive soils. The geotechnical evaluation also includes recommendations that expansive or clayey soils are not used for backfill materials. With adherence to the Revised Preliminary Geotechnical Report recommendations as required for grading permit issuance (Municipal Code Section 17.32.040 [Ord. No. 2001-1123, 11-27-01]), impacts related to expansive soils would be less than significant.

***Threshold No. 8: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?***

The proposed project does not include septic tanks or alternative wastewater disposal systems. As described in Chapter 3.17, Utilities and Service Systems, the proposed project would construct private on-site sewer lines that would connect to existing Sewer District infrastructure. Therefore, impacts would be less than significant.

***Threshold No. 9: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Although ground-disturbing activities associated with the proposed project have the potential to unearth previously unidentified paleontological resources, the preliminary geotechnical evaluation prepared for the proposed project did not identify any unique geologic features on the project site.

As outlined in the Paleontological Resources Inventory Report (Appendix O), no paleontological resources were identified within the project site as a result of the institutional records search and desktop geological and paleontological review. The paleontological records search conducted by the SDNHM revealed four nearby localities, all of which are from the same geological unit that underlies the project site on the surface or at depth (the Santiago Formation). Eocene deposits mapped within and throughout most of the project site have high paleontological sensitivity; Holocene alluvial deposits have low paleontological sensitivity on the surface, increasing with depth; and artificial fill, if present, has no paleontological sensitivity. Based on the records search results and map and literature review, the project site has high potential to produce paleontological resources during planned construction activities in areas underlain by Eocene deposits and Holocene deposits at depth. In the event that intact paleontological resources are discovered on the project site, ground-disturbing activities associated with construction of the project, such as grading and augering during site preparation and trenching for utilities, have the potential to destroy a unique paleontological resource on site. Without mitigation, the potential damage to paleontological resources during construction would be a potentially significant impact (**Impact GEO-1**). With implementation of mitigation measure **MM-GEO-1**, impacts would be reduced to below a level of significance. Impacts of the project are considered less than significant with mitigation incorporated during construction.

### 3.6.5 Mitigation Measures

Based upon the analysis presented in Sections 3.6.4, impacts related to geology and soils would be less than significant, with the exception to impacts to paleontological resources (Impact GEO-1). With implementation of the following mitigation measure, impacts to paleontological resources would be reduced to a level of less than significant.

**MM-GEO-1** Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) 2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. The qualified paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project that shall be consistent with the SVP 2010 Standard Procedures and outline requirements for preconstruction meeting attendance and worker environmental awareness training, where paleontological monitoring is required within the project site based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The PRIMP shall also include a statement that any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the project proponent. A qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities (including augering) in areas underlain by the Santiago Formation and below a depth of 5 feet below the ground surface in areas underlain by Holocene alluvium to determine if they are old enough to preserve scientifically significant paleontological resources. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.

### 3.6.6 Conclusion

Based upon the analysis presented in Section 3.6.4, impacts associated with seismicity, liquefaction, landslides, erosion/loss of topsoil, compressible soils, and expansive soils were determined to be less than significant. Impacts to paleontological resources during project construction would be reduced to a level of less than significant with implementation of mitigation measure MM-GEO-1. The proposed project would be required to adhere to all recommendations in the Revised Preliminary and Final Geotechnical Evaluation prepared for the project and would be required to comply with all applicable regulations outlined in Section 3.6.2.



## 3.7 Greenhouse Gas Emissions

This section describes the existing setting of the project site related to greenhouse gas (GHG) emissions and climate change, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Pacific Specific Plan Project (proposed project). Information for this section relies on the Air Quality and Greenhouse Gas Emissions Technical Report prepared for the proposed project by Dudek in February 2023. The Air Quality and Greenhouse Gas Emissions Technical Report is included as Appendix B to this environmental impact report (EIR).

A summary of the GHG analysis, by threshold, is provided in Table 3.7-1. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHG emissions to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. While significance determinations are provided below at the project- and cumulative-levels, it is generally recognized that global climate change and a project's GHG emissions are inherently cumulative issues, based on the science of global climate change.

**Table 3.7-1. Greenhouse Gas Emissions Summary of Impacts**

| Threshold of Significance   | Project Direct Impact | Project Cumulative Impact | Significance Determination |
|---|-----------------------|---------------------------|----------------------------|
| No. 1 - Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. | Less than Significant | Less than Significant     | Less than Significant      |
| No. 2 - Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHGs.             | Less than Significant | Less than Significant     | Less than Significant      |

The project would consist of a GPA/Rezone to convert the existing Industrial (I) land use designation to Specific Plan Area (SPA). The project would be required to adhere to the regulatory measures in Section 3.2.1 to ensure compliance with the applicable City of San Marcos Climate Action Plan (CAP) Checklist measures (City of San Marcos 2020a).

### 3.7.1 Existing Conditions

This section introduces the environmental setting as it relates to GHG emissions, providing a climate change overview; information on GHG and climate forcing substances, global warming potential, and sources of GHG emissions; and describing potential effects of climate change in the region of the proposed project.

#### Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process: short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and is the most significant driver of observed climate change (EPA 2017a; IPCC 2013). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

#### Greenhouse Gases and Other Climate-Forcing Substances

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), ozone (O<sub>3</sub>), water vapor, hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).<sup>1</sup> Some GHGs, such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases, such as HFCs, HCFCs, PFCs, and SF<sub>6</sub>, which are associated with certain industrial products and processes. A summary of the most common GHGs and their sources is included in the following text.<sup>2</sup> Also included is a discussion of other climate-forcing substances.

**Carbon Dioxide.** CO<sub>2</sub> is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO<sub>2</sub> include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO<sub>2</sub> are the combustion of fuels such as coal, oil, natural gas, and wood, and changes in land use.

**Methane.** CH<sub>4</sub> is produced through both natural and human activities. CH<sub>4</sub> is a flammable gas and is the main component of natural gas. CH<sub>4</sub> is produced through anaerobic (without oxygen) decomposition of waste in landfills,

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<sup>1</sup> California Health and Safety Code Section 38505 identifies seven GHGs that CARB is responsible for monitoring and regulating to reduce emissions: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, PFCs, and nitrogen trifluoride.

<sup>2</sup> The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (IPCC 1995), IPCC Fourth Assessment Report (IPCC 2007), CARB's Glossary of Terms Used in GHG Inventories (CARB 2015), and EPA's Glossary of Climate Change Terms (EPA 2016d).

flooded rice fields, animal digestion, decomposition of animal waste, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** N<sub>2</sub>O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N<sub>2</sub>O. Sources of N<sub>2</sub>O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N<sub>2</sub>O as a propellant (such as in rockets, racecars, and aerosol sprays).

**Fluorinated Gases.** Fluorinated gases (also referred to as F-gases) are powerful synthetic GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons [CFCs], HCFCs, and halons). The most prevalent fluorinated gases are the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone-depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF<sub>6</sub> is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** Nitrogen trifluoride is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

**Chlorofluorocarbons.** CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere), and the production of CFCs was prohibited beginning in 1987 due to the chemical destruction of stratospheric O<sub>3</sub>.

**Hydrochlorofluorocarbons.** HCFCs are a large group of compounds whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use is being phased out.

**Black Carbon.** Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and wildfires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify its global warming potential. Diesel particulate matter emissions are a major source of black carbon and are toxic air contaminants that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter from CARB's regulations pertaining to diesel engines,

diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have been reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014).

**Water Vapor.** The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

**Ozone.** Tropospheric O<sub>3</sub>, which is created by photochemical reactions involving gases from natural sources and human activities, acts as a GHG. Stratospheric O<sub>3</sub>, which is created by the interaction between solar ultraviolet radiation and molecular oxygen, plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O<sub>3</sub>, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

**Aerosols.** Aerosols are suspensions of PM in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

#### Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017b). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO<sub>2</sub>; therefore, GWP-weighted emissions are measured in metric tons (MT) of carbon dioxide equivalent (CO<sub>2</sub>e).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2020.4.0) assumes that the GWP for CH<sub>4</sub> is 25 (so emissions of 1 MT of CH<sub>4</sub> are equivalent to emissions of 25 MT of CO<sub>2</sub>), and the GWP for N<sub>2</sub>O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007).

#### Sources of Greenhouse Gas Emissions

Anthropogenic GHG emissions worldwide in 2019 (the most recent year for which data is available) totaled approximately 52.4 million metric tons (MMT) of CO<sub>2</sub>e, excluding land use change and forestry (PBL 2018). Six countries—China, the United States, the Russian Federation, India, Japan, and Brazil—and the European community accounted for approximately 62% of the total global emissions, or approximately 32.5 MMT CO<sub>2</sub>e (PBL 2018).

Per the EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2019, total United States GHG emissions were approximately 6,558.3 MMT CO<sub>2</sub>e in 2019 (EPA 2021). Overall, from 1990 to 2019, total emissions of CO<sub>2</sub> increased by 142.4 MMT CO<sub>2</sub>e (2.8%), while total emissions of CH<sub>4</sub> decreased by 117.2 MMT CO<sub>2</sub>e (15.1%) and emissions of N<sub>2</sub>O increased by 4.5 MMT CO<sub>2</sub>e (1.0%). During the same period, aggregate weighted emissions of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride rose by 86.0 MMT CO<sub>2</sub>e (86.3%). From 1990 to 2019, HFCs increased by 128.1 MMT CO<sub>2</sub>e (275.4%), PFCs decreased by 19.8 MMT CO<sub>2</sub>e (81.5%), SF<sub>6</sub> decreased by 22.9 MMT CO<sub>2</sub>e (79.5%), and nitrogen trifluoride increased by 0.6 MMT CO<sub>2</sub>e (1,162.7%).

According to California's 2000–2019 GHG emissions inventory (2021 edition), California emitted 418.2 MMT CO<sub>2</sub>e in 2019, including emissions resulting from out-of-state electrical generation (CARB 2021). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high-GWP substances, and recycling and waste. The California GHG emission source categories and their relative contributions in 2019 are shown in Table 3.7-2.

**Table 3.7-2. Greenhouse Gas Emissions Sources in California**

| Source Category                          | Annual GHG Emissions (MMT CO <sub>2</sub> e) | Percent of Total <sup>a</sup> |
|--|--|-------------------------------|
| Transportation                           | 166.1  | 40                            |
| Industrial uses                          | 88.2   | 21                            |
| Electricity generation <sup>b</sup>      | 58.8   | 14                            |
| Residential and commercial uses          | 43.8   | 10                            |
| Agriculture                              | 31.8   | 8                             |
| High global warming potential substances | 20.6   | 5                             |
| Recycling and waste                      | 8.9  | 2                             |
| <b>Totals</b>                            | <b>418.2</b>                                 | <b>100%</b>                   |

**Source:** CARB 2021.

**Notes:** GHG = greenhouse gas; MMT CO<sub>2</sub>e = million metric tons of carbon dioxide equivalent. Emissions reflect 2019 California GHG inventory.

<sup>a</sup> Percentage of total has been rounded and total may not sum due to rounding.

<sup>b</sup> Includes emissions associated with imported electricity, which account for 21.7 MMT CO<sub>2</sub>e.

The City's community-wide GHG emissions baseline inventory in 2012 was estimated to be 599,000 MT CO<sub>2</sub>e (City of San Marcos 2020b). On-road transportation is the largest contributor to the emissions, accounting for 54% (or 322,000 MT CO<sub>2</sub>e) of the City's 2012 total, followed by electricity at 27% (or 162,000 MT CO<sub>2</sub>e) of the emissions. Accounting for future population and economic growth, the City projects GHG emissions of 526,000 MT CO<sub>2</sub>e in 2020 and 429,000 MT CO<sub>2</sub>e in 2030. The projections assume population, housing, employment, and transportation activity will continue to grow over time, and accounts for GHG emission reductions associated with implementation of the City's Climate Action Plan and legislative reductions (City of San Marcos 2020b).

### Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 IPCC Synthesis Report indicated that warming of the climate system is unequivocal, and many of the observed changes since the 1950s are unprecedented. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice pack, and rising sea levels (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. Potential effects of climate change are outlined in detail in Appendix B to this EIR.

## 3.7.2 Regulatory Setting

The following section provides a summary of the applicable regulatory requirements pertaining to GHGs, including federal, state, and local guidelines; additional detail can be found in Appendix B.

### Federal

#### Infrastructure Investment and Jobs Act

On November 6, 2021, Congress passed the Bipartisan Infrastructure Deal (Infrastructure Investment and Jobs Act), a once-in-a-generation investment in our nation's infrastructure and competitiveness. This Bipartisan Infrastructure Deal will rebuild America's roads, bridges, and rails, expand access to clean drinking water, ensure every American has access to high-speed internet, tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind. The legislation will help ease inflationary pressures and strengthen supply chains by making long overdue improvements for our nation's ports, airports, rail, and roads. It will drive the creation of good-paying union jobs and grow the economy sustainably and equitably so that everyone gets ahead for decades to come. Combined with the President's Build Back Framework, it will add on average 1.5 million jobs per year for the next 10 years. It will improve transportation options for millions of Americans to reduce energy use and GHG emissions. It will increase investment in electric vehicle chargers and renewable energy production.

**Executive Order on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.** President Biden will sign an executive order that demonstrates how the United States will leverage its scale and procurement power to lead by example in tackling the climate crisis. The executive order will reduce emissions across federal operations, invest in American clean energy industries and manufacturing, and create clean, healthy, and resilient communities. The President's executive order directs the federal government to use its scale and procurement power to achieve the following five ambitious goals:

- 100% carbon pollution-free electricity by 2030, at least half of which will be locally supplied clean energy to meet 24/7 demand
- 100% zero-emission vehicle (ZEV) acquisitions by 2035, including 100% zero-emission light-duty vehicle acquisitions by 2027
- Net-zero emissions from federal procurement no later than 2050, including a Buy Clean policy to promote use of construction materials with lower embodied emissions
- A net-zero emissions building portfolio by 2045, including a 50% emissions reduction by 2032
- Net-zero emissions from overall federal operations by 2050, including a 65% emissions reduction by 2030

**Massachusetts v. EPA.** In *Massachusetts v. Environmental Protection Agency (EPA)* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The Administrator further found the combined emissions of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

**Energy Independence and Security Act.** The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

### Federal Vehicle Standards

In August 2016, EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

On September 27, 2019, the EPA and NHTSA also published their Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51,310), which became effective November 26, 2019. The Part One Rule revoked California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the EPA and NHTSA also issued Part Two of the SAFE Rule, which went into effect June 29, 2020 (85 FR 24174). The Part Two Rule set CO<sub>2</sub> emissions standards and corporate average fuel economy standards for passenger vehicles and light duty trucks for model years 2021 through 2026. On January 20, 2021, President Joe Biden issued an Executive Order on Protecting Public Health and the Environment and Restoring

Science to Tackle the Climate Crisis, which includes review of the Part One Rule by April 2021 and review of the Part Two Rule by July 2021 (The White House 2021). On April 22, 2021, NHTSA issued a notice of proposed rulemaking that would repeal those portions of SAFE 1 (including the regulatory text and interpretive statements in the preamble) that found California's GHG and ZEV mandates pre-empted by EPCA. One day after NHTSA issued its notice, EPA announced its parallel action on SAFE 1. On December 21, 2021, after reviewing all the public comments submitted on NHTSA's April 2021 Notice of Proposed Rulemaking, NHTSA finalizes the CAFE Pre-emption rulemaking to withdraw its portions of the so-called SAFE I Rule.

### State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes executive orders, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

#### State Climate Change Targets

**Executive Order S-3-05.** Executive Order (EO) S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

**Assembly Bill 32.** In furtherance of the goals established in EO S-3-05, the legislature enacted Assembly Bill (AB) 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

**Executive Order B-55-18.** EO B-55-18 (September 2018) establishes a statewide policy for the state to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

**California Air Resources Board's Climate Change Scoping Plan.** One specific requirement of AB 32 was for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emissions limit and initiate the transformations needed to achieve the state's long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
2. Achieving a statewide renewable energy mix of 33%.
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions.



4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (17 CCR 95480 et seq.).
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations, and for community emissions to reduce GHGs by approximately 15% from then levels (2008) by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level, using more recent GWPs identified by the IPCC, from 427 MMT CO<sub>2</sub>e to 431 MMT CO<sub>2</sub>e (CARB 2014).

In 2015, as directed by EO B-30-15 (discussed below), CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in EO S-3-05. The governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the legislature affirmed the importance of addressing climate change through passage of SB 32.

In December 2017, CARB adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) for public review and comment (CARB 2017). The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the state's climate change priorities to 2030 and beyond. The strategies' commitments include implementing renewable energy and energy efficiency strategies (including the mandates of SB 350), increasing stringency of the Low Carbon Fuel Standard, implementing measures identified in the Mobile Source and Freight Strategies, implementing measures identified in the proposed Short-Lived Climate Pollutant Reduction Strategy, and increasing stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program.

For local governments, the 2017 Scoping Plan replaced the initial Scoping Plan's 15% reduction goal with a recommendation to aim for a community-wide goal of no more than 6 MT CO<sub>2e</sub> per capita by 2030, and no more than 2 MT CO<sub>2e</sub> per capita by 2050, which are consistent with the state's long-term goals. These goals are also consistent with the Under 2 Memorandum of Understanding (Under 2 Coalition 2016) and the Paris Agreement, which are developed around the scientifically based levels necessary to limit global warming to below 2°C. The 2017 Scoping Plan recognized the benefits of local government GHG planning (e.g., through CAPs) and provided more information regarding tools CARB is working on to support those efforts. It also recognized the CEQA streamlining provisions for project-level review where there is a legally adequate CAP.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the executive orders, and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with the statutes and executive orders if it meets the general policies in reducing GHG emissions to facilitate the achievement of the state's goals and does not impede attainment of those goals. A project would be consistent if it will further the objectives and not obstruct their attainment.

CARB presently is preparing the 2022 Scoping Plan Update, which will assess progress towards achievement of the state's 2030 reduction target and lay out a path for the state's achievement of carbon neutrality by 2045. CARB has held a number of public workshops to provide information on the plan update and solicit feedback from stakeholders. A draft plan has not yet been released for public review and comment.

**Executive Order B-30-15.** EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 specifically set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050, as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 called for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO<sub>2e</sub>. The executive order also called for state agencies to continue to develop and implement GHG emissions reduction programs in support of the reduction targets. Sector-specific agencies in transportation, energy, water, and forestry were required to prepare GHG reduction plans by September 2015, followed by a report on action taken in relation to these plans in June 2016. EO B-30-15 did not require local agencies to take any action to meet the new interim GHG reduction target.

**Senate Bill 32 and Assembly Bill 197.** SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG-reduction targets, made changes to CARB's membership and increased legislative oversight of CARB's climate change-based activities, and expanded dissemination of GHG and other air-quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

**Senate Bill 605 and Senate Bill 1383.** SB 605 (2014) required CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state, and SB 1383 (2016) required CARB to approve and implement that strategy by January 1, 2018. SB 1383 also established specific targets for the reduction of short-

lived climate pollutants (40% below 2013 levels by 2030 for CH<sub>4</sub> and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon) and provided direction for reductions from dairy and livestock operations and landfills. The Short-Lived Climate Pollutants Reduction Strategy was approved by CARB in March 2017 and lays out a range of options to reduce short-lived climate pollutant emissions in California, including regulations, incentives, and other market-supporting activities.

## Building Energy

**Title 24, Part 6.** Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Although not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and California Energy Commission (CEC) and revised if necessary (California Public Resources Code [PRC] Section 25402[b][1]). The regulations receive input from members of industry and the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2019 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2020. The 2019 Title 24 Building Energy Efficiency Standards will further reduce energy used and associated GHG emissions compared to prior standards. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards will use approximately 53% less energy than those under the 2016 standards (CEC 2018). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018). The project is subject to the nonresidential standards due to the number of stories. The project's apartments and affordable flats are subject to the nonresidential standards while the rowhomes and villas are subject to the residential standards.

On August 11, 2021, the CEC adopted the 2022 Energy Code. In December 2021, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

**Title 24, Part 11.** In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as California's Green Building Standards (CALGreen) and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings, schools, and hospitals. The CALGreen 2019 standards, which are the current standards, became effective January 1, 2020.

**Title 20.** Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

**Assembly Bill 1109.** Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50% for indoor residential lighting and by 25% for indoor commercial lighting.

**SB 1.** SB 1 (Murray) (August 2006) established a \$3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the PRC, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for homes and businesses within 10 years of adoption and placing solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed “Go Solar California,” was previously titled “Million Solar Roofs.”

**California AB 1470 (Solar Water Heating).** This bill established the Solar Water Heating and Efficiency Act of 2007. AB 1470 makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. AB 1470 defines several terms for purposes of the act. The bill required a commission to evaluate the data available from a specified pilot program, and to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

**Renewable Energy and Energy Procurement.** SB 1078 (2002) established the Renewables Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities. Initially, the RPS required utilities to obtain 20% of their power from renewable sources by 2010. SB X1-2 (2011) subsequently expanded the RPS by establishing that 33% of the total electricity sold to retail customers in California per year by December 31, 2020, and in subsequent years, be secured from qualifying renewable energy sources. SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. And SB 100 (2018) further accelerated the RPS, requiring achievement of a 50% RPS by December 31, 2026, and a 60% RPS by December 31, 2030. SB 100 also established a new state policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100% of electricity retail sales and 100% of electricity procured to serve all state agencies by December 31, 2045.

Under the program, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester

gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location.

## Mobile Sources

**CARB's Mobile Source Strategy.** On May 16, 2016, CARB released the 2016 Mobile Source Strategy that demonstrates how the state can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next 15 years. The actions contained in the 2016 Mobile Source Strategy will deliver broad environmental and public health benefits, as well as support much needed efforts to modernize and upgrade transportation infrastructure, enhance system-wide efficiency and mobility options, and promote clean economic growth in the mobile sector. The 2016 Mobile Source Strategy would also result in a 45% reduction in GHG emissions, and a 50% reduction in the consumption of petroleum-based fuels.

On October 28, 2021, CARB received and heard the 2020 Mobile Source Strategy, which continues and builds upon the foundation established by the 2016 Mobile Source Strategy. The 2020 Mobile Source Strategy, if implemented, would achieve a 76% reduction in GHG emissions from 2020 levels from mobile sources by 2045, as largely attributable to transitioning towards a zero-emissions fleet. Moving forward, CARB anticipates that the programs and concepts in the 2020 Mobile Source Strategy will be incorporated into other aspects of CARB's regulatory and planning frameworks.

**State Vehicle Standards.** AB 1493 (July 2002) was enacted in response to the transportation sector accounting for more than one-half of California's CO<sub>2</sub> emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. AB 1493 required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004.

As explained under the "Federal Vehicle Standards" description above, the EPA and NHTSA approved the SAFE Vehicles Rule Part One and Two, which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. Because the EPA rule is the subject of pending legal challenges, and because President Biden issued an executive order to review Part One and Part Two, this analysis used the best available information at this time, as set forth in EMFAC and assumed in CalEEMod.

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that by 2025, cars will emit 75% less smog-forming pollution than the average new car sold in 2012. To reduce GHG emissions, CARB, in conjunction with the EPA and NHTSA, adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

**Executive Order S-1-07.** Issued on January 18, 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO<sub>2</sub>e grams per unit of fuel energy sold in California. The initial target of the Low Carbon

Fuel Standard was to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The Low Carbon Fuel Standard was subsequently amended in 2018 to require a 20% reduction in carbon intensity by 2030. This new requirement aligns with the California's overall 2030 target of reducing climate changing emissions to 40% below 1990 levels by 2030, set by SB 32. CARB has adopted implementing regulations for both the 10% and 20% carbon intensity reduction targets.

**Senate Bill 375.** SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code Section 65080(b)(2)(K), an SCS does not regulate the use of land; supersede the land use authority of cities and counties; or require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets adopted for the San Diego Association of Governments (SANDAG) in 2010 are a 7% reduction in per-capita passenger-vehicle GHG emissions by 2020 and a 13% reduction by 2035, measured relative to 2005 GHG emissions. In 2018, CARB adopted the second round of SB 375 reduction targets, and increased SANDAG's 2020 target to a 15% reduction in per-capita passenger-vehicle GHG emissions, and the 2035 target to a 19% reduction using the same 2005 baseline.

**Senate Bill 350.** In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see California Public Utilities Code, Section 740.12).

**AB 1236.** AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based on substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. AB 1236 provided for appeal of that decision to the planning commission, as specified. The bill provided that the implementation of consistent statewide standards to achieve the timely and cost-effective installation of electric vehicle charging stations is a matter of statewide concern. The bill required electric vehicle charging stations to meet specified standards. AB 1236 required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for electric vehicle charging stations. The bill also required a city, county, or city and county with a population of fewer than 200,000 residents to adopt this ordinance by September 30, 2017.

**Executive Order B-16-12.** EO B-16-12 (2012) directs state entities under the Governor’s direction and control to support and facilitate development and distribution ZEVs. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less than 1990 levels by 2050. In furtherance of this executive order, the Governor convened an Interagency Working Group on ZEVs that has published multiple reports regarding the progress. It ordered CARB, CEC, the California Public Utilities Commission, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

**Executive Order N-79-20.** EO N-79-20 (2020) sets the goal for the State that 100% of in-state sales of new passenger cars and trucks will be zero-emission by 2035. EO-N-79-20 also sets goals for transition to 100% zero emission all medium- and heavy-duty vehicles by 2045, zero emission drayage trucks by 2035, and zero emission off-road vehicles and equipment by 2035, where feasible. Among other directives to further this executive order, for passenger cars and trucks, the Governor directed CARB to develop and propose regulations requiring increasing volumes of new zero-emission vehicles sold in the State towards the target of 100% of in-state sales by 2035. The Governor also directed the Governor’s Office of Business and Economic Development to develop a Zero-Emissions Vehicle Market Development Strategy, which was completed in February 2021. The executive order also directs updates and assessments to ensure zero-emission vehicle infrastructure is in place to support the levels of electric vehicle adoption required by the order.

#### Small Offroad Engines

The CARB approved a measure on December 9, 2021, that will require most newly manufactured small off-road engines such as those found in leaf blowers, lawn mowers and other equipment be zero emission starting in 2024. Portable generators, including those in recreational vehicles, would be required to meet more stringent standards in 2024 and meet zero-emission standards starting in 2028.

#### Solid Waste

**AB 939 and AB 341.** In 1989, AB 939, known as the Integrated Waste Management Act (PRC Sections 40000 et seq.), was passed because of the increase in waste stream and decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed of where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state’s policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops, and in August 2015 published a discussion document titled AB 341 Report to the Legislature, which identified five priority strategies that CalRecycle believed would assist the state in reaching the 75% goal by 2020, legislative and regulatory recommendations, and an evaluation of program effectiveness.

**SB 1383.** Beginning in 2022, SB 1383 requires every jurisdiction to provide organic waste collection services to all residents and businesses. Jurisdictions can select from a variety of organic waste collection services to match their unique communities and local infrastructure, while producing clean streams of organic feedstock that can be recycled

into high-quality, marketable recycled products, including compost, renewable natural gas, electricity, and paper. Jurisdictions will educate all residents and businesses about collection requirements, including what materials to put in curbside bins. Education to residents and businesses may vary by jurisdiction and educational content may be provided electronically, through hard copy materials, or through direct outreach.

## Water

**Executive Order B-29-15.** In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the executive order extended through February 28, 2016, although many of the directives have since become permanent water-efficiency standards and requirements. The executive order includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increased the requirements for landscape water use efficiency and broadened its applicability to include new development projects with smaller landscape areas.

**EO B-37-16.** Issued May 2016, EO B-37-16 directed the State Water Resources Control Board to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state. The State Water Resources Control Board also developed a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The State Water Resources Control Board and Department of Water Resources will develop new, permanent water use targets that build on the existing state law requirements that the state achieve 20% reduction in urban water usage by 2020. EO B-37-16 also specifies that the State Water Resources Control Board permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in fountains and other decorative water features; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.

## Other State Regulations and Goals

**SB 97.** SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. The California Natural Resources Agency (CNRA) then adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010. The CEQA Guidelines were subsequently amended in 2018, which changes became effective on December 28, 2018.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines provide that a lead agency should also consider the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features; off-site measures, including offsets that are not otherwise required; measures in an existing plan or mitigation program; measures that sequester GHGs; etc. (14 CRR 15126.4[c]). The adopted amendments do not establish a GHG emissions threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts (14 CCR 15064.7). The CEQA Guidelines also permit using environmental standards – i.e., an applicable and relevant quantitative, qualitative or performance requirement found in an ordinance, resolution, rule, regulation, order, plan,



or other environmental requirement that has been adopted for the purpose of environmental protection – as a threshold of significance to promote consistency in significance determinations (14 CCR 15064.7 [d]).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should “make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either quantifying the emissions resulting from a project or by relying on “qualitative analysis or other performance-based standards” (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should focus on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. The analysis should consider a timeframe appropriate for the project and must reasonably reflect evolving scientific knowledge and state regulatory schemes (14 CCR 15064.4[b]).

Section 15183.5 of the CEQA Guidelines allows agencies to tier from qualified GHG reduction plans developed in accordance with subsection (b). Specifically, the GHG reduction plan must quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area; establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable; identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area; specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; establish a mechanism to monitor the plan’s progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and be adopted in a public process following environmental review.

**Executive Order S-13-08.** EO Order S-13-08 (November 2008) is intended to hasten California’s response to the impacts of global climate change, particularly sea-level rise. Therefore, the executive order directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009 (CNRA 2009), an update, Safeguarding California: Reducing Climate Risk, followed in July 2014 (CNRA 2014) as well as in 2018, Safeguarding California Plan: 2018 Update California’s Climate Adaptation Strategy (CNRA 2018). The draft 2021 California Climate Adaptation Strategy was released for public comment on October 18, 2021, and closed on November 17, 2021. To assess the state’s vulnerability, the report summarizes key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water.

## Local

### SANDAG RTP/SCS

SANDAG completed and adopted its 2050 RTP/SCS in October 2011. In November 2011, CARB, by resolution, accepted SANDAG’s GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB’s 2020 and 2035 GHG emissions reduction targets for the region.

In October 2015, SANDAG adopted San Diego Forward: The Regional Plan (SANDAG 2015). Like the 2050 RTP/SCS, San Diego Forward: Regional Plan meets CARB’s 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG’s GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB’s 2020 and 2035 GHG emissions reduction targets for the region.

The 2021 Regional Plan, adopted by SANDAG on December 10, 2021, provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources (SANDAG 2021). The plan is the result of years of planning, data analysis, and community engagement to reimagine the San Diego region with a transformative transportation system, a sustainable pattern of growth and development, and innovative demand and management strategies.

The 2021 Regional Plan includes an SCS, as required by California Senate Bill 375 (Steinberg 2008) (SB 375), for the San Diego region. This SCS describes coordinated transportation and land use planning that exceeds the state's target for reducing per capita GHG emissions set by CARB. The state-mandated target is a 19% reduction—compared with 2005—in per capita GHG emissions from cars and light-duty trucks by 2035. The 2021 Regional Plan achieves a 20% reduction by then.

The 2021 Regional Plan also puts forth a forecasted development pattern that is driven by regional goals for sustainability, mobility, housing affordability, and economic prosperity.

**City of San Marcos Climate Action Plan.** The City adopted its currently applicable CAP on December 8, 2020 (City of San Marcos 2020b). The CAP acts as a roadmap to address challenges of climate change within the City. The CAP builds on the efforts and strategies identified in the City's 2013 CAP and establishes GHG emission reduction targets and identifies achievable, locally based actions to reduce GHG emissions from municipal and community activities. The CAP includes a baseline GHG emissions inventory for 2012, GHG emissions forecasts for 2020 and 2030, local GHG emissions reduction strategies and measures to help the City achieve the 2030 target, climate adaptation measures for the City, and implementation and monitoring mechanisms to ensure the City's measures and targets are achieved. The CAP establishes GHG emissions reduction goals of 4% below 2012 levels by 2020 and 42% below 2012 levels by 2030 (City of San Marcos 2020b).

The CAP was prepared in accordance with the requirements within CEQA Guidelines Section 15183.5, and the CAP Consistency Checklist is used in this analysis to evaluate the proposed project's significance with respect to GHG emissions. As provided in the Checklist, projects that are consistent with the CAP "may rely on the CAP for the cumulative impact analysis of GHG emissions" and "may be determined not to be cumulatively considerable" (City of San Marcos 2020b)

**City of San Marcos General Plan.** The City's General Plan (City of San Marcos 2012) includes various policies related to reducing GHG emissions. Applicable policies include the following:

#### Land Use and Community Design Element

Goal LU-1: Achieve a balanced distribution and compatible mix of land uses to meet the present and future needs of all residents and the business community.

Policy LU-1.1: Ensure that adjacent land uses complement one another by considering compatibility of activities, development patterns and architectural character elements and access to various mobility choices.

Goal LU-2: Promote development standards and land use patterns that encourage long-term environmental sustainability.

Policy LU-2.1: Promote compact development patterns that reduce air pollution and automobile dependence and facilitate walking, bicycling, and transit use.

Policy LU-2.3: Require the incorporation of green building practices, technologies, and strategies into development projects per code standards

Policy LU-2.5: Promote landscaping (e.g., native, drought tolerant plants) that minimizes demands on water supply.

Policy LU-2.7: Promote the instillation of trees to reduce the urban heat-island effect and green infrastructure to reduce storm water runoff.

Policy LU-3.1: Require that new development and redevelopment incorporate connections and reduce barriers between neighborhoods, transit corridors, and activity centers within the City.

### Mobility Element

Policy M-1.3: Require new developments to prepare and implement Transportation Demand Management (TDM) programs to minimize vehicle trip generation and promote alternative modes of travel within the City.

Goal M-3: Promote and encourage use of alternative transportation modes, including transit, bicycles, neighborhood electric vehicles (NEVs), and walking, within the City.

Policy M-3.1: Develop an integrated, multimodal circulation system that accommodates transit, bicycles, pedestrians, and vehicles; provides opportunities to reduce air pollution and GHG emissions; and reinforces the role of the street as a public space that unites the City.

### Conservation and Open Space Element

Goal COS-4: Improve regional air quality and reduce greenhouse gas emissions that contribute to climate change.

Policy COS-4.5: Encourage energy conservation and the use of alternative energy sources within the community.

Policy COS-4.6: Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment.

## 3.7.3 Thresholds of Significance

California has developed guidelines to address the significance of GHG emissions impacts that are contained in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Appendix G provides that a project would have a significant environmental impact if it would:

Threshold No. 1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold No. 2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The CEQA Guidelines provide that in determining the significance of impacts from GHG emissions, an agency may consider the extent to which the project complies with a local plan for the reduction or mitigation of GHG emissions. (See CEQA Guidelines Sections 15064.4[b][3], 15183.5.) Relatedly, project-specific GHG analyses can tier from plans adopted for the reductions of GHGs (CEQA Guidelines Section 15183.5). As indicated above, the City has adopted such a plan when it adopted its CAP on December 8, 2020. Accordingly, for purposes of GHG Threshold No. 1, the project's GHG emissions are assessed by evaluating the project's consistency with the City's CAP, which is discussed below in detail. For purposes of GHG Threshold No. 2, the project is assessed based on its potential to conflict with the City's CAP, as well as with statewide and regional plans for emissions reductions.

## Analysis Approach and Methodology

### City of San Marcos CAP Consistency Checklist

The CAP Consistency Checklist relies on a quantitative screening threshold, an assessment of a project's consistency with the growth projections used in the development of the CAP, and an evaluation of project implementation of specific emission reduction measures to determine whether a project's emissions would be consistent with the City's CAP. Where a project is not consistent with the existing General Plan land use designation (as is the case with this proposed project), the CAP Checklist asks whether the project would generate GHG emissions equal to or less than estimated GHG emissions generated under the existing land use designation. Because of this, this EIR quantifies the projected GHG emissions of the proposed project and the existing land use designation using the following methodology.

### Construction

CalEEMod Version 2020.4.0 was used to estimate potential project-generated GHG emissions during construction. Construction of the proposed project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All construction-related details discussed in Chapter 3.2, Air Quality, of this EIR are also applicable for the estimation of construction-related GHG emissions for the proposed project.

### Existing Land Use Designation

To compare the GHG emissions intensity of the proposed project and a land use built under the existing land use designation, the following section summarizes the methodology used for quantifying potential impacts of construction under the existing land use designation. Construction assumptions, including timing, phasing, equipment type and quantity, and worker and vendor truck trips, were based on the maximum allowed buildout of the existing land use alternative. The existing land use alternative assumed development of 480,000 square feet of research and development area with a 220,000 square foot (1,440 spaces) four-story parking structure. Similar to the project, over 17 acres would be set aside for biological preservation.

The construction equipment mix used for estimating the construction emissions of the existing land use designation is based on CalEEMod defaults and presented in Appendix B, as well as Table 3.7-3 below.

**Table 3.7-3. Construction Scenario Assumptions - Existing Land Use Designation**

| Construction Phase    | One-Way Trips |                     |                   | Equipment                 | Quantity | Hours Per Day |
|-----------------------|---------------|---------------------|-------------------|---------------------------|----------|---------------|
|                       | Daily Workers | Daily Vendor Trucks | Total Haul Trucks |                           |          |               |
| Site Preparation      | 18            | 0                   | 0                 | Rubber-Tired Dozers       | 3        | 8             |
|                       |               |                     |                   | Tractors/Loaders/Backhoes | 4        | 8             |
| Grading               | 20            | 0                   | 0                 | Excavators                | 2        | 8             |
|                       |               |                     |                   | Graders                   | 1        | 8             |
|                       |               |                     |                   | Rubber-Tired Dozers       | 1        | 8             |
|                       |               |                     |                   | Scrapers                  | 2        | 8             |
|                       |               |                     |                   | Tractors/Loaders/Backhoes | 2        | 8             |
| Building Construction | 246           | 116                 | 0                 | Cranes                    | 1        | 7             |
|                       |               |                     |                   | Forklifts                 | 3        | 8             |
|                       |               |                     |                   | Generator Sets            | 1        | 8             |
|                       |               |                     |                   | Tractors/Loaders/Backhoes | 3        | 7             |
|                       |               |                     |                   | Welders                   | 1        | 8             |
| Paving                | 16            | 0                   | 0                 | Pavers                    | 2        | 8             |
|                       |               |                     |                   | Paving Equipment          | 2        | 8             |
|                       |               |                     |                   | Rollers                   | 2        | 8             |
| Architectural Coating | 50            | 0                   | 0                 | Air Compressors           | 1        | 6             |

Source: See Appendix B.

### Operation

Similar to construction, emissions from the operational phase of the existing land use designation and proposed project were estimated using CalEEMod.

### Existing Land Use Designation

#### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating were calculated in the building energy use module of CalEEMod, as described in the following text.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. Based on CalEEMod defaults for the County, the average annual number of summer days is estimated at 180 days (CAPCOA 2021).

#### Energy Sources

CalEEMod default values for electricity use and natural gas consumption for each land use type were applied for the existing land use designation. The energy use from industrial land uses is calculated in CalEEMod based on the Commercial End-Use Survey (CAPCOA 2021). Energy use in buildings (both natural gas and electricity) is divided by CalEEMod into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous “plug-in” uses).

Operational GHG emissions from energy sources include natural gas combustion for appliances and space and water heating. The current Title 24, Part 6 standards, referred to as the 2019 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2020, and is incorporated into CalEEMod 2020.4.0. (CAPCOA 2021). In accordance with Checklist Item 6 of the City's CAP Checklist, the existing land use would install solar PV with a minimum of 2 watts per gross floor area, or 960,000 watts. The output of the solar system was estimated using NREL's PVWatts and included in Appendix C of Appendix B to this EIR.

CalEEMod default energy intensity factors (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O mass emissions per kilowatt hour) for SDG&E were based on the value for SDG&E's energy mix in 2021. SB X1-2 established a target of 33% from renewable energy sources for all electricity providers in California by 2020, and SB 350 calls for further development of renewable energy, with a target of 50% by 2030. SB 100 updated this goal with a 60% renewable energy target by 2030.

#### Mobile Sources

The land use built under the existing land use designation would generate GHG emissions from mobile sources (vehicular traffic) as a result of trucks and employee vehicles. CalEEMod was used to estimate emissions from proposed vehicular sources (refer to Appendix A of Appendix B to this EIR). CalEEMod default data, including trip rates, trip modes, trip lengths, fleet mix, and emissions factors, were used for the model inputs. CalEEMod default vehicle emission factors and vehicle fleet mix for 2024, as based on the CARB's EMFAC2017 model, were used to estimate emissions associated with vehicular sources.

#### Solid Waste

The land use built under the existing land use designation would generate solid waste and therefore would result in CO<sub>2</sub>e emissions associated with landfill off-gassing. CalEEMod default values were used to estimate GHG emissions associated with solid waste.

#### Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the land use built under the existing land use designation require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the land use built under the existing land use designation requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use relied upon CalEEMod default assumptions.

#### Proposed Project

##### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating were calculated in the building energy use module of CalEEMod, as described in the following text.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. Based on CalEEMod defaults for the County, the average annual number of summer days is estimated at 180 days (CAPCOA 2021). It should be noted that CalEEMod 2020.4.0 does not account for the recent SORE regulations and thus is considered conservative.

##### Energy Sources

Operational GHG emissions from energy sources would include natural gas combustion for appliances and space heating. The current Title 24, Part 6 standards, referred to as the 2019 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2020. The CalEEMod 2020.4.0 assumes compliance with the 2019 Title 24 Building Energy Efficiency Standards (CAPCOA 2021).

CalEEMod default energy intensity factors (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O mass emissions per kilowatt hour) for SDG&E are based on the value for SDG&E's energy mix in 2021. As explained above, SB X1-2 established a target of 33% from renewable energy sources for all electricity providers in California by 2020, and SB 350 calls for further development of renewable energy, with a target of 50% by 2030. SB 100 updated this goal with a 60% renewable energy target by 2030.

##### Mobile Sources

The proposed project would generate GHG emissions from mobile sources (vehicular traffic) as a result of residents of the proposed project. CalEEMod was used to estimate emissions from such mobile sources (refer to Appendix C of Appendix B to this EIR), with the default trip generation rates in CalEEMod adjusted to reflect the overall weekday daily trips based on the VMT Analysis (Appendix J). The project-specific trip length from the VMT Analysis based on the SANDAG regional travel demand model was incorporated into the modeling as well. CalEEMod default data, trip modes, trip lengths, fleet mix, and emissions factors, were used for the model inputs. CalEEMod default vehicle emission factors and vehicle fleet mix for 2024, as based on the CARB EMFAC2017 model, were used to estimate emissions associated with vehicular sources. It should be noted that the most recent version of EMFAC is EMFAC2021 v1.0.1, which incorporates additional regulatory measures and ZEV uptake that reduce GHG emissions over time. Therefore, the use of EMFAC2017 would be considered conservative.

##### Solid Waste

The proposed project would generate solid waste and therefore would result in CO<sub>2</sub>e emissions associated with landfill off-gassing. CalEEMod default values were used to estimate GHG emissions associated with solid waste.

## Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the proposed project would require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project would require the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use relied on CalEEMod default assumptions.

### 3.7.4 Project Impact Analysis

This section evaluates the GHG emissions impacts associated with the proposed project. The significance criteria described in Section 3.7.3, Thresholds of Significance, were used to evaluate impacts associated with the construction and operation of the proposed project.

***Threshold No. 1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

***Threshold No. 2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

#### City of San Marcos' Climate Action Plan Consistency

This section evaluates the proposed project's impacts to GHG in accordance with the City's 2020 CAP Consistency Checklist. A completed CAP Checklist is included as Appendix C of Appendix B to this EIR.

The first step in this section evaluates the proposed project's GHG emissions consistent with the City's Guidance to Demonstrating Consistency with the City of San Marcos Climate Action Plan: For Discretionary Projects Subject to CEQA (City's Guidance Document; City of San Marcos 2020c). New discretionary development projects subject to CEQA review that emit less than 500 MT CO<sub>2</sub>e annually would not contribute considerably to cumulative climate change impacts as stated in the City's Guidance Document and, therefore, would be considered consistent with the CAP and associated emissions projections. For projects that are subject to CAP consistency review, the next step in determining consistency is to assess the project's consistency with the growth projections used in development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

#### Step 1

##### Question 1

Step 1 of the CAP Checklist determines land use consistency. Question 1 of Step 1 asks if a project is less than a certain size. If so, it is deemed consistent with the City's CAP by emitting fewer than 500 MT CO<sub>2</sub>e per year and would be less than significant. Here, the proposed project is larger than the screening size (55 multifamily residential units) and therefore would answer "Yes" to this question and proceed to Question 2 of Step 1.



Question 2

Question 2 of Step 1 asks if the project is consistent with the existing General Plan land use designation. The project proposes residential use, but the General Plan currently designates the site as Industrial (I). Therefore, the proposed project would answer “No” to this question and proceed to Question 3 of Step 1.

Question 3

Question 3 of Step 1 asks if the project would generate GHG emissions equal to or less than estimated GHG emissions generated under the land use built under the existing land use designation. The following section discusses the results of the construction and emissions analysis based on the methodologies described in Appendix B to this EIR, for the existing land use designation and proposed project.

Existing Land Use Designation

Construction Emissions

Construction of a land use built under the existing land use designation (Industrial) would result in GHG emissions that are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles. Table 3.7-4 presents construction emissions for the existing land use designation from construction-related sources.

**Table 3.7-4. Estimated Annual Construction GHG Emissions - Existing Land Use Designation**

| Year                                     | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> e |
|--|-----------------|-----------------|------------------|-------------------|
|  | Metric Tons     |                 |                  |                   |
| 2023                                     | 448.57          | 0.06            | 0.02             | 456.68            |
| 2024                                     | 601.48          | 0.07            | 0.04             | 613.66            |
| <b>Total</b>                             |                 |                 |                  | <b>1,070.34</b>   |
| <b>Emissions amortized over 30 years</b> |                 |                 |                  | <b>35.68</b>      |

Source: Appendix B.

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent. See Appendix B for complete results.

As shown in Table 3.7-4, the estimated total GHG emissions during construction under the existing land use designation would be approximately 1,070 MT CO<sub>2</sub>e. Construction GHG emissions under the existing land use designation amortized over 30 years would be 36 MT CO<sub>2</sub>e per year. Amortized construction emissions are added to operational emissions to be compared to the proposed project for this assessment.

Operational Emissions

Operation of a land use built under the existing land use designation (Industrial) would generate GHG emissions through area sources; motor vehicle trips to and from the project site; energy use (natural gas and generation of electricity consumed by the existing land use designation); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. The estimated operational emissions under the existing land use designation are presented in Table 3.7-5.

**Table 3.7-5. Estimated Annual Operational GHG Emissions - Existing Industrial Land Use Designation**

| Emission Source                                    | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> e |
|--|-----------------|-----------------|------------------|-------------------|
|  | Metric Tons     |                 |                  |                   |
| Area   | 0.01            | <0.01           | 0.00             | 0.01              |
| Energy   | 1,154.15        | 0.06            | 0.01             | 1,159.11          |
| Mobile   | 3,312.42        | 0.25            | 0.16             | 3,364.79          |
| Waste  | 7.41            | 0.44            | 0.00             | 18.35             |
| Water  | 827.58          | 7.74            | 0.19             | 1,076.77          |
| <b>Total</b>                                       |                 |                 |                  | <b>5,619.03</b>   |
| <b>Amortized construction emissions</b>            |                 |                 |                  | <b>35.68</b>      |
| <b>Total with amortized construction emissions</b> |                 |                 |                  | <b>5,654.71</b>   |

**Source:** Appendix B.

**Notes:** CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent; <0.01 = reported value less than 0.01.

See Appendix B for complete results.

As shown in Table 3.7-5, estimated annual GHG emissions from the existing land use designation would be approximately 5,619 MT CO<sub>2</sub>e per year. With amortized construction emissions, the annual operational emissions would be 5,655 MT CO<sub>2</sub>e per year.

## Proposed Project

### Construction Emissions

Construction of the proposed project would result in GHG emissions that are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles. Table 3.7-6 presents construction emissions for the proposed project from construction-related sources.

**Table 3.7-6. Estimated Annual Construction GHG Emissions - Proposed Project**

| Year                                     | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> e |
|--|-----------------|-----------------|------------------|-------------------|
|  | Metric Tons     |                 |                  |                   |
| 2023                                     | 526.59          | 0.07            | 0.02             | 535.23            |
| 2024                                     | 729.76          | 0.07            | 0.04             | 742.73            |
| <b>Total</b>                             |                 |                 |                  | <b>1,277.96</b>   |
| <b>Emissions amortized over 30 years</b> |                 |                 |                  | <b>42.60</b>      |

**Source:** Appendix B.

**Notes:** CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent.

See Appendix B for complete results.

As shown in Table 3.7-6, the estimated total GHG emissions during construction of the proposed project would be approximately 1,278 MT CO<sub>2</sub>e. Construction GHG emissions amortized over 30 years would be 43 MT CO<sub>2</sub>e per year. Amortized construction emissions are added to operational emissions to be compared development allowed under the existing land use designation.

Operational Emissions

Operation of the proposed project would generate GHG emissions through area sources; motor vehicle trips to and from the project site; energy use (natural gas and generation of electricity consumed by the project); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. The estimated operational emissions of the proposed project are presented in Table 3.7-7.

**Table 3.7-7. Estimated Annual Operational GHG Emissions - Proposed Project**

| Emission Source                                    | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | CO <sub>2</sub> e |
|--|-----------------|-----------------|------------------|-------------------|
|  | Metric Tons     |                 |                  |                   |
| Area   | 359.12          | 0.01            | 0.01             | 361.35            |
| Energy   | 641.73          | 0.03            | 0.01             | 644.51            |
| Mobile   | 2,491.13        | 0.18            | 0.11             | 2,529.40          |
| Waste  | 41.93           | 2.48            | 0.00             | 103.87            |
| Water  | 152.77          | 0.96            | 0.02             | 183.84            |
| <b>Total</b>                                       |                 |                 |                  | <b>3,822.97</b>   |
| <b>Amortized construction emissions</b>            |                 |                 |                  | <b>42.60</b>      |
| <b>Total with amortized construction emissions</b> |                 |                 |                  | <b>3,865.57</b>   |

Source: Appendix B.

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent; <0.01 = reported value less than 0.01.

See Appendix B for complete results.

As shown in Table 3.7-7, estimated annual GHG emissions from the proposed project would be approximately 3,823 MT CO<sub>2</sub>e per year. With amortized construction emissions, the annual operational emissions would be 3,866 MT CO<sub>2</sub>e per year. As shown in Table 3.7-5, estimated annual GHG emissions from development of the site under the existing land use designation would be 5,655 MT CO<sub>2</sub>e per year. Therefore, the proposed project would generate GHG emissions that would be less than the existing land use designation. The proposed project, therefore, would answer “Yes” to Question 3 of Step 1 and proceed to Step 2 of the Checklist.

Step 2

The second step of CAP consistency review is to evaluate a project’s consistency with the applicable strategies and measures of the CAP. Each Checklist item is associated with a specific GHG reduction measure in the City’s CAP. All projects for which the measure is applicable must demonstrate that the project would implement measures consistent with the Checklist item, or fully substantiate how the item would be infeasible for project implementation. “Not Applicable” (“N/A”) should only be checked based on the direction provided in each Checklist item/question, and “N/A” responses are subject to Planning Division review and approval. If “No” is provided as a response to a question, the project would be determined to be inconsistent with the CAP and would result in a significant GHG impact.

Checklist Item 1. Electric Vehicle Charging Stations (Measure T-2)

This Checklist item applies to multifamily residential and non-residential projects. It asks if the project will install electric vehicle charging stations (Level 2 or better) in at least 5% of the total parking spaces provided on-site.

The proposed project would comply with this checklist item. The proposed project consists of development of 449 residential units, and a GPA/Rezone to convert the existing Industrial (I) land use and zoning designations

to a Specific Plan Area designation to allow for residential development. The project would include 927 total parking spaces. A minimum of 5% of parking spaces required would be equipped with EV charging stations or as otherwise required by CALGreen, whichever is more significant. Accordingly, the proposed project would answer “Yes” to this question.

#### Checklist Item 2. Bicycle Infrastructure (Measure T-8)

This Checklist item applies to residential and non-residential projects. It asks whether the project would pay its fair-share contribution to bicycle infrastructure improvements if the following conditions are met:

- Intersection or roadway segment improvements are proposed as part of the project.
- The City’s General Plan Mobility Element identifies bicycle infrastructure improvements at any intersection(s) or roadway segment(s) that would be improved as part of the project.

The project would comply with this checklist item. As shown in Section 3.15.6, the project will include the following roadway and bicycle improvements:

#### Active Transportation Improvements

1. Construct sidewalks to close sidewalk gaps on the site frontage on La Mirada Drive, Pacific Street, and Linda Vista Drive.
2. Construct or preserve space for the portions of proposed bicycle facilities on Linda Vista Drive from Pacific Street to South Las Posas Road immediately adjacent to the site.
3. Provide transit stop amenities including, at a minimum, bench, shelter, and trash can at the southbound stop at the intersection of South Las Posas Road/Linda Vista Drive located on the southwest corner of the intersection.

Accordingly, the proposed project would answer “Yes” to this question.

#### Checklist Item 3. Transportation Demand Management (Measure T-9)

This Checklist item applies to residential and non-residential projects. It asks whether the project would develop and implement a Transportation Demand Management (TDM) Plan that includes, at a minimum, all of the following TDM strategies:

- Provide discounted monthly transit pass or provide at least 25% transit fare subsidy to residents/employees.
- Provide designated car-share, carpool, vanpool, and/or park-and-ride parking spaces.
- Provide pedestrian connections between all internal uses and to all existing or planned external streets around the project site(s).
- Provide secure bicycle parking spaces or bicycle racks, showers, and clothes lockers.
- Encourage telecommuting for employees (allow one telecommute day per week or compressed work weeks) or provide a telecommute work center with common office space and equipment available to residents.

-or

- Implement and monitor for 4 years a TDM program that demonstrates an alternative transportation (i.e., carpool, public transit, bicycle, walk, telecommute) mode share of at least 29% for all residents.

The project would comply with this checklist item. The project would develop and implement a TDM plan that incorporates the required TDM strategies listed in this measure. Accordingly, the proposed project would answer “Yes” to this question.

#### Checklist Item 4. Reduce Parking Near Transit (Measure T-12)

This Checklist item applies to multi-family residential projects and asks whether the project would provide at least 27% fewer parking spaces than required for the same use based on the City’s municipal code parking requirements, if located within 0.5 miles of a major transit stop.

The project is not located within 0.5 miles of a major transit stop defined as a bus or light-rail station with fixed service and 10-minute minimum headways during peak hours. Therefore, the proposed project would answer “N/A” to this question.

#### Checklist Item 5. Water Heaters (Measure E-1)

This Checklist item applies to residential projects and asks if the project would install one of, or a combination of, the following water heater types in place of natural gas water heaters:

- Electric heat pump water heater
- Instantaneous electric water heater
- Electric tank
- Solar water heater with heat pump water heater backup
- Solar water heater with electric tank backup

The project would comply with this checklist item. The project would install non-natural gas water heaters that would meet the requirements of this checklist item. Accordingly, the proposed project would answer “Yes” to this question.

#### Checklist Item 6. Photovoltaic Installation (Measure E-2)

This Checklist item applies to non-residential projects. Therefore, the proposed project would answer “N/A” to this checklist item.

#### Checklist Item 7. Landscaping Water Use (Measure W-1)

This Checklist item applies to residential and non-residential projects and inquires whether the project would comply with the City’s Water Efficient Landscape Ordinance.

The proposed project would comply with this checklist item. The project's landscaping would meet the requirements within the City's Water Efficient Landscape Ordinance. As prescribed in Section 4.3.1 of the specific plan, The selected plants are well suited to the local soils and have proven to flourish within the project area’s climate and are consistent with AB 1881 requirements and the City of San Marcos Water Efficient Landscape Ordinance and Municipal Code, Title 20. The project will include composting, climate adapted plants, mulch, minimal use of turf,

and smart water-efficient irrigation systems to minimize water use. Accordingly, the proposed project would answer “Yes” to this question.

Checklist Item 8. Urban Tree Canopy (Measure C-2)

This Checklist item applies to residential and non-residential projects and asks whether the project will plant at least one tree per five parking spaces provided, if more than 10 parking spaces are otherwise included in the project.

The project would comply with this checklist item. The project is providing 927 parking spaces and will plant approximately 517 trees to satisfy this checklist requirement. Accordingly, the proposed project would answer “Yes” to this question.

Summary

The proposed project consists of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.09 acres within the approximately 33.2-acre project site. The project would include a total of 927 parking spaces, and 134,985 square feet of private common open space area. The proposed project also includes landscaping, bio-retention areas, and circulation improvements. The remaining 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area.

As outlined above, the proposed project would result in fewer GHG emissions than the industrial development type permitted by the project site’s existing land use designation (which is accounted for in the City’s CAP), and the project would be required to implement all applicable checklist items within the City’s 2020 CAP, as a condition of project approval. Therefore, implementation of the proposed project would be consistent with the City’s 2020 CAP and impacts to GHG emissions would be less than significant.

Consistency with Statewide Greenhouse Gas Reduction Strategies

The proposed project’s consistency with statewide GHG reduction strategies is summarized in detail in Table 3.7-8 through consideration of the project’s various construction and operational components and their relationship to specified laws and regulations designed to reduce GHG emissions from such components.

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component                              | Applicable Laws/Regulations  | GHG Reduction Measures Required for Project   |
|--|--|---|
| <b>Building Components/Facility Operations</b> |  |   |
| Roofs/Ceilings/Insulation                      | CALGreen Code (Title 24, Part 11)<br>California Energy Code (Title 24, Part 6) | The proposed project must comply with efficiency standards regarding roofing, ceilings, and insulation. For example:<br><br>Roofs/Ceilings: New construction must reduce roof heat island effects per CALGreen Code Section 106.11.2, which requires use of roofing materials having a minimum aged solar reflectance, thermal emittance complying with Section A5.106.11.2.2 and A5.106.11.2.3 or a minimum aged Solar Reflectance Index as specified in Tables A5.106.11.2.2, or A5.106.11.2.3. Roofing materials |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component               | Applicable Laws/Regulations             | GHG Reduction Measures Required for Project   |
|---------------------------------|---|---|
|                                 |   | <p>must also meet solar reflectance and thermal emittance standards contained in Title 20 Standards.</p> <p><u>Roof/Ceiling Insulation</u>: There are also requirements for the installation of roofing and ceiling insulation. (See Title 24, Part 6 Compliance Manual at Section 3.2.2.)</p>  |
| Flooring                        | CALGreen Code                           | The proposed project must comply with efficiency standards regarding flooring materials. For example, for 80% of floor area receiving “resilient flooring,” the flooring must meet applicable installation and material requirements contained in CALGreen Code Section 5.504.4.6.  |
| Window and Doors (Fenestration) | California Energy Code                  | The proposed project must comply with fenestration efficiency requirements. For example, the choice of windows, glazed doors, and any skylights for the project must conform to energy consumption requirements affecting size, orientation, and types of fenestration products used. (See Title 24, Part 6 Compliance Manual, Section 3.3.)  |
| Building Walls/Insulation       | CALGreen Code<br>California Energy Code | <p>The proposed project must comply with efficiency requirements for building walls and insulation.</p> <p><u>Exterior Walls</u>: Must meet requirements in current edition of California Energy Code and comply with Sections A5.106.7.1 or A5.106.7.2 of CALGreen Code for wall surfaces, as well as Section 5.407.1, which required weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2. Construction must also meet requirements contained in Title 24, Part 6, which vary by material of the exterior walls. (See Title 24, Part 6 Compliance Manual, Part 3.2.3.)</p> <p><u>Demising (Interior) Walls</u>: Mandatory insulation requirements for demising walls (which separate conditioned from non-conditions space) differ by the type of wall material used. (<i>Id.</i> at 3.2.4.)</p> <p><u>Door Insulation</u>: There are mandatory requirements for air infiltration rates to improve insulation efficiency; they differ according to the type of door. (<i>Id.</i> at 3.2.5.)</p> <p><u>Flooring Insulation</u>: There are mandatory requirements for insulation that depend on the material and location of the flooring. (<i>Id.</i> at 3.2.6.)</p> |
| Finish Materials                | CALGreen Code                           | The proposed project must comply with pollutant control requirements for finish materials. For example, materials including adhesives, sealants, caulks, paints and coatings, carpet systems, and composite wood products must meet requirements in CALGreen Code to  |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component   | Applicable Laws/Regulations   | GHG Reduction Measures Required for Project   |
|---|---|---|
| <p>Wet Appliances<br/>(Toilets/Faucets/Urinals, Dishwasher/Clothes Washer, Spa and Pool/Water Heater)</p> | <p>CALGreen Code<br/>California Energy Code Appliance Efficiency Regulations (Title 20 Standards)</p> | <p>ensure pollutant control. (CALGreen Code Section 5.504.4.)</p> <p>Wet appliances associated with the proposed project must meet various efficiency requirements. For example:</p> <p><u>Spa and Pool:</u> Use associated with the project is subject to appliance efficiency requirements for service water heating systems and equipment, spa and pool heating systems and equipment. (Title 24, Part 6, Sections 110.3, 110.4, 110.5; Title 20 Standards, Sections 1605.1(g), 1605.3(g); see also California Energy Code.)</p> <p><u>Toilets/Faucets/Urinals:</u> Use associated with the project is subject to new maximum rates for toilets, urinals, and faucets effective January 1, 2016:</p> <ul style="list-style-type: none"> <li>▪ Showerheads maximum flow rate 2.5 gpm at 80 psi</li> <li>▪ Wash fountains 2.2 x (rim space in inches/20) gpm at 60 psi</li> <li>▪ Metering faucets 0.25 gallons/cycle</li> <li>▪ Lavatory faucets and aerators 1.2 gpm at 60 psi</li> <li>▪ Kitchen faucets and aerators 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi</li> <li>▪ Public lavatory faucets 0.5 gpm at 60 psi</li> <li>▪ Trough-type urinals 16 inches length</li> <li>▪ Wall mounted urinals 0.125 gallons per flush</li> <li>▪ Other urinals 0.5 gallons per flush</li> </ul> <p>(Title 20 Standards, Sections 1605.1(h),(i) 1065.3(h),(i).)</p> <p><u>Water Heaters:</u> Use associated with the project is subject to appliance efficiency requirements for water heaters. (Title 20 Standards, Sections 1605.1(f), 1605.3(f).)</p> <p><u>Dishwasher/Clothes Washer:</u> Use associated with the project is subject to appliance efficiency requirements for dishwashers and clothes washers. (Title 20 Standards, Sections 1605.1(o),(p),(q), 1605.3(o),(p),(q).)</p> |
| <p>Dry Appliances<br/>(Refrigerator/Freezer, Heater/Air Conditioner, Clothes Dryer)</p>                   | <p>Title 20 Standards<br/>CALGreen Code</p>   | <p>Dry appliances associated with the proposed project must meet various efficiency requirements. For example:</p> <p><u>Refrigerator/Freezer:</u> Use associated with the proposed project is subject to appliance efficiency requirements for refrigerators and freezers. (Title 20 Standards, Sections 1605.1(a), 1605.3(a).)</p>  |



**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component | Applicable Laws/Regulations | GHG Reduction Measures Required for Project   |
|-------------------|-----------------------------|---|
|                   |                             | <p><u>Heater/Air Conditioner:</u> Use associated with the proposed project is subject to appliance efficiency requirements for heaters and air conditioners. (Title 20 Standards, Sections 1605.1(b),(c),(d),(e), 1605.3(b),(c),(d),(e) as applicable.)</p> <p><u>Clothes Dryer:</u> Use associated with the proposed project is subject to appliance efficiency requirements for clothes dryers. (Title 20 Standards, Section 1605.1(q).)</p>  |
|                   | CALGreen Code               | Installations of HVAC, refrigeration and fire suppression equipment must comply with CALGreen Code Sections 5.508.1.1 and 508.1.2, which prohibits CFCs, halons, and certain HCFCs and HFCs.  |
| Lighting          | Title 20 Standards          | <p>Lighting associated with the proposed project will be subject to energy efficiency requirements contained in Title 20 Standards.</p> <p><u>General Lighting:</u> Indoor and outdoor lighting associated with the proposed project must comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(j),(k),(n), 1605.3(j),(k),(n).)</p> <p><u>Emergency lighting and self-contained lighting:</u> the proposed project must also comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(l), 1605.3(l).)</p> <p><u>Traffic Signal Lighting:</u> For any necessary proposed project improvements involving traffic lighting, traffic signal modules and traffic signal lamps will need to comply with applicable appliance efficiency regulations (Title 20 Standards, Sections 1605.1(m), 1605.3(m).)</p> |
|                   | California Energy Code      | <p>Lighting associated with a use implementing the proposed project will also be subject to energy efficiency requirements contained in Title 24, Part 6, which contains energy standards for non-residential indoor lighting and outdoor lighting. (See Title 24 Part 6 Compliance Manual, at Sections 5, 6.)</p> <p>Mandatory lighting controls for indoor lighting include, for example, regulations for automatic shut-off, automatic daytime controls, demand responsive controls, and certificates of installation. (Id. at Section 5.) Regulations for outdoor lighting include, for example, creation of lighting zones, lighting power requirements, a hardscape lighting power allowance, requirements for outdoor incandescent and luminaire</p>   |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component           | Applicable Laws/Regulations                                     | GHG Reduction Measures Required for Project   |
|-----------------------------|---|---|
|                             |   | lighting, and lighting control functionality. (Id. at Section 6.)   |
|                             | AB 1109   | Lighting associated with implementing the proposed project will be subject to energy efficiency requirements adopted pursuant to AB 1109.<br><br>Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.   |
| Bicycle and Vehicle Parking | CALGreen Code   | A use implementing the proposed project will be required to provide compliant bicycle parking, fuel-efficient vehicle parking, and electric vehicle charging spaces (CALGreen Code Sections 5.106.4, 5.106.5.1, 5.106.5.3)  |
|                             | California Energy Code  | The proposed project is also subject to parking requirements contained in Title 24, Party 6. For example, parking capacity is to meet but not exceed minimum local zoning requirements, and the project should employ approved strategies to reduce parking capacity (Title 24, Part 6, section 106.6)  |
| Landscaping                 | CALGreen Code   | The CALGreen Code requires and has further voluntary provisions for: <ul style="list-style-type: none"> <li>▪ -A water budget for landscape irrigation use;</li> <li>▪ For new water service, separate meters or submeters must be installed for indoor and outdoor potable water use for landscaped areas of 1,000-5,000 square feet;</li> <li>▪ -Provide water-efficient landscape design that reduces use of potable water beyond initial requirements for plant installation and establishment</li> </ul> |
|                             | Model Water Efficient Landscaping Ordinance                     | The model ordinance promotes efficient landscaping in new developments and establishes an outdoor water budget for new and renovated landscaped areas that are 500 square feet or larger. (CCR, Title 23, Division 2, Chapter 2.7.)   |
|                             | Cap-and-Trade Program   | Transportation fuels used in landscape maintenance equipment (e.g., gasoline) would be subject to the Cap-and-Trade Program. Fuel refineries and suppliers are subject to the Cap-and-Trade requirements. (See “Energy Use,” below.)  |
| Refrigerants                | CARB Management of High GWP Refrigerants for Stationary Sources | Any refrigerants associated with the project will be subject to CARB standards. CARB’s Regulation for the Management of High GWP Refrigerants for Stationary Sources 1) reduces emissions of high-GWP refrigerants  |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component                                       | Applicable Laws/ Regulations                   | GHG Reduction Measures Required for Project   |
|---|--|---|
|   |  | <p>from leaky stationary, non-residential refrigeration equipment; 2) reduces emissions resulting from the installation and servicing of stationary refrigeration and air conditioning appliances using high-GWP refrigerants; and 3) requires verification GHG emission reductions. (CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 5.1, Section 95380 et seq.)</p>  |
| Consumer Products                                       | CARB High GWP GHGs in Consumer Products        | <p>All consumer products associated with the project will be subject to CARB standards. CARB’s consumer products regulations set VOC limits for numerous categories of consumer products and limits the reactivity of the ingredients used in numerous categories of aerosol coating products (CCR, Title 17, Division 3, Chapter 1, Subchapter 8.5.)</p>   |
| <b>Construction</b>                                     |  |   |
| Use of Off-Road Diesel Engines, Vehicles, and Equipment | CARB In-Use Off-Road Diesel Vehicle Regulation | <p>Any relevant vehicle or machine use associated with the project will be subject to CARB standards.</p> <p>The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: 1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; 2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; 3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).</p> <p>The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.</p> |
|   | Cap-and-Trade Program                          | <p>Transportation fuels (e.g., gasoline) used in equipment operation would be subject to the Cap-and-Trade Program. Fuel refineries and suppliers are subject to the Cap-and-Trade requirements. (See “Energy Use,” below.)</p>   |
| Greening New Construction                               | CALGreen Code                                  | <p>All new construction must comply with CALGreen Code, as discussed in more detail throughout this table.</p> <p>Adoption of the mandatory CALGreen Code standards for construction has been essential for improving the overall environmental performance of new buildings; it also sets voluntary targets for builders to exceed the mandatory requirements.</p>   |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component      | Applicable Laws/Regulations             | GHG Reduction Measures Required for Project   |
|------------------------|---|---|
| Construction Waste     | CALGreen Code                           | The proposed project will be subject to CALGreen Code requirements for construction waste reduction, disposal, and recycling, such as a requirement to recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction waste in accordance with Section 5.408.1.1, 5.408.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.  |
| <b>Solid Waste</b>     |   |   |
| Solid Waste Management | Landfill Methane Control Measure        | <p>Waste associated with a use implementing the proposed project will be disposed per state requirements for landfills, material recovery facilities, and transfer stations. Per the statewide GHG emissions inventory, the largest emissions from waste management sectors come from landfills and are in the form of CH<sub>4</sub>.</p> <p>In 2010, CARB adopted a regulation that reduces emissions from methane in landfills, primarily by requiring owners and operators of certain uncontrolled municipal solid waste landfills to install gas collection and control systems, and requires existing and newly installed gas and control systems to operate in an optimal manner. The regulation allows local air districts to voluntarily enter into a memorandum of understanding with CARB to implement and enforce the regulation and to assess fees to cover costs of implementation.</p> |
|                        | Mandatory Commercial Recycling (AB 341) | <p>AB 341 will require a use implementing the proposed project, if it generates four cubic yards or more of commercial solid waste per week, to arrange for recycling services, using one of the following: self-haul; subscribe to a hauler(s); arranging for pickup of recyclable materials; subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation.</p> <p>The project will also be subject to local commercial solid waste recycling program required to be implemented by each jurisdiction under AB 341.</p>  |
|                        | CALGreen Code                           | The proposed project will be subject to CALGreen Code requirement to provide areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling (CALGreen Code Section 5.410.1)  |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component                  | Applicable Laws/Regulations                  | GHG Reduction Measures Required for Project  |
|------------------------------------|--|--|
| <b>Energy Use</b>                  |  |  |
| Electricity/Natural Gas Generation | Cap-and-Trade Program                        | <p>Electricity and natural gas generated and/or imported into the state that may be used for the proposed project will be subject to the Cap-and-Trade Program.</p> <p>The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase.</p> <p>Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending (RBOB), distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 metric tons or more of CO<sub>2e</sub> annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California.</p>  |
| Renewable Energy                   | California RPS (SB X1-2, SB 350, and SB 100) | <p>Energy providers to the proposed project will be required to comply with RPS set by SB X1 2, SB 350, and SB 100.</p> <p>SB X1 2 requires investor-owned utilities, publicly owned utilities, and electric service providers to increase purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. In the interim, each entity was required to procure an average of 20% of renewable energy for the period of January 1, 2011, through December 31, 2013; and will be required to procure an average of 25% by December 31, 2016, and 33% by 2020.</p> <p>SB 350 requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030.</p> <p>SB 100 increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California by 2045.</p> |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component | Applicable Laws/ Regulations                                     | GHG Reduction Measures Required for Project  |
|-------------------|--|--|
|                   | Million Solar Roofs Program (SB 1)                               | <p>The project will participate in California’s energy market by pre-wiring roofs for future installation of solar, which is affected by implementation of the Million Solar Roofs Program.</p> <p>As part of Governor Schwarzenegger's Million Solar Roofs Program, California has set a goal to install 3,000 megawatts of new, solar capacity through 2016. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time.</p>   |
|                   | California Solar Initiative- Thermal Program                     | <p>The proposed project will derive energy from California’s energy market, which is affected by implementation of the California Solar Initiative - Thermal Program. The program offers cash rebates of up to \$4,366 on solar water heating systems for single-family residential customers. Multifamily and Commercial properties qualify for rebates of up to \$800,000 on solar water heating systems and eligible solar pool heating systems qualify for rebates of up to \$500,000. Funding for the California Solar Initiative-Thermal program comes from ratepayers of Pacific Gas &amp; Electric, SCE, Southern California Gas Company, and San Diego Gas &amp; Electric. The rebate program is overseen by the CPUC as part of the California Solar Initiative.</p>   |
|                   | Waste Heat and Carbon Emissions Reduction Act (AB 1613, AB 2791) | <p>The proposed project will indirectly derive energy from California’s energy market, which is affected by implementation of the Waste Heat and Carbon Emissions Reduction Act.</p> <p>Originally enacted in 2007 and amended in 2008, this act directed the CEC, CPUC, and CARB to implement a program that would encourage the development of new combined heat and power systems in California with a generating capacity of not more than 20 megawatts, to increase combined heat and power use by 30,000 gigawatt-hour. The CPUC publicly owned electric utilities, and CEC duly established policies and procedures for the purchase of electricity from eligible combined heat and power systems.</p> <p>CEC guidelines require combined heat and power systems to be designed to reduce waste energy; have a minimum efficiency of 60%; have NO<sub>x</sub> emissions of no more than 0.07 pounds per megawatt-hour; be sized to meet eligible customer generation thermal load; operate continuously in a manner that meets expected thermal load and optimizes efficient use of</p> |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component               | Applicable Laws/Regulations                 | GHG Reduction Measures Required for Project   |
|---------------------------------|---|---|
|                                 |   | waste heat; and be cost effective, technologically feasible, and environmentally beneficial.  |
| <b>Vehicular/Mobile Sources</b> |   |   |
| General                         | SB 375 and SANDAG RTP/SCS                   | The proposed project complies with, and is subject to, the SANDAG adopted RTP/SCS, which CARB approved as meeting its regional GHG targets in 2016. The most recent plan was adopted in December 2021, but CARB has not accepted it as of this writing. See discussion below.   |
| Fuel                            | Low Carbon Fuel Standard (LCFS)/ EO S-01-07 | Auto trips associated with the proposed project will be subject to LCFS (EO S-01-07), which requires a 20% or greater reduction in the average fuel carbon intensity by 2030 with a 2010 baseline for transportation fuels in California regulated by CARB. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve statewide GHG reduction goals.  |
|                                 | Cap-and-Trade Program                       | <p>Gasoline used for proposed project implementation will be subject to the Cap-and-Trade Program.</p> <p>The rules came into effect on January 1, 2013, applying to large electric power plants and large industrial plants. In 2015, importers and distributors of fossil fuels were added to the Cap-and-Trade Program in the second phase.</p> <p>Specifically, on January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, RBOB, distillate fuel oils, and liquefied petroleum gas that meet or exceed specified emissions thresholds. The threshold that triggers a cap-and-trade compliance obligation for a fuel supplier is 25,000 MT or more of CO<sub>2</sub>e annually from the GHG emissions that would result from full combustion or oxidation of quantities of fuels (including natural gas, RBOB, distillate fuel oil, liquefied petroleum gas, and blended fuels that contain these fuels) imported and/or delivered to California.</p> |
| Light-Duty Vehicles             | AB 1493 (or the Pavley Standard)            | <p>Cars that drive to and from the proposed project will be subject to AB 1493, which directed CARB to adopt a regulation requiring the maximum feasible and cost-effective reduction of GHG emissions from new passenger vehicles.</p> <p>Pursuant to AB 1493, CARB adopted regulations that establish a declining fleet average standard for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs (air conditioner refrigerants) in new passenger vehicles and light-duty trucks beginning with</p>   |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component | Applicable Laws/Regulations                 | GHG Reduction Measures Required for Project   |
|-------------------|---|---|
|                   |   | <p>the 2009 model year and phased-in through the 2016 model year. These standards are divided into those applicable to lighter and those applicable to heavier portions of the passenger vehicle fleet.</p> <p>The regulations will reduce “upstream” smog-forming emissions from refining, marketing, and distribution of fuel.</p>  |
|                   | <p>Advanced Clean Car and ZEV Programs</p>  | <p>Cars that drive to and from the proposed project will be subject to the Advanced Clean Car and ZEV Programs.</p> <p>In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars. By 2025, new automobiles will emit 34% fewer global warming gases and 75% fewer smog-forming emissions.</p> <p>The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018-2025 model years.</p> |
|                   | <p>Tire Inflation Regulation</p>            | <p>Cars that drive to and from the proposed project will be subject to the CARB Tire Inflation Regulation, which took effect on September 1, 2010, and applies to vehicles with a gross vehicle weight rating of 10,000 pounds or less.</p> <p>Under this regulation, automotive service providers must, inter alia, check and inflate each vehicle’s tires to the recommended tire pressure rating, with air or nitrogen, as appropriate, at the time of performing any automotive maintenance or repair service, and to keep a copy of the service invoice for a minimum of 3 years, and make the vehicle service invoice available to the CARB, or its authorized representative upon request.</p>   |
|                   | <p>EPA and NHTSA GHG and CAFE Standards</p> | <p>Mobile sources that travel to and from the proposed project would be subject to EPA and NHTSA GHG and CAFE standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles. (75 FR 25324-25728 and 77 FR 62624-63200.)</p>   |



**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component    | Applicable Laws/Regulations             | GHG Reduction Measures Required for Project   |
|----------------------|---|---|
| <b>Water Use</b>     |   |   |
| Water Use Efficiency | Emergency State Water Board Regulations | <p>Water use associated with the proposed project will be subject to emergency regulations.</p> <p>On May 18, 2016, partially in response to EO B-27-16, the State Water Board adopted emergency water use regulations (CCR, title 23, Section 864.5 and amended and re-adopted Sections 863, 864, 865, and 866). The regulation directs the State Water Board, Department of Water Resources, and CPUC to implement rates and pricing structures to incentivize water conservation, and calls upon water suppliers, homeowners' associations, California businesses, landlords and tenants, and wholesale water agencies to take stronger conservation measures.</p>   |
|                      | EO B-37-16                              | <p>Water use associated with the proposed project will be subject to Emergency EO B-37-16, issued May 9, 2016, which directs the State Water Resources Control Board to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state.</p> <p>The Water Board must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The Water Board and Department of Water Resources will develop new, permanent water use targets to which the project will be subject.</p> <p>The Water Board will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.</p> |
|                      | EO B-40-17                              | EO B-40-17 lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the State Water Resources Control Board to continue development of permanent prohibitions on wasteful water use to which the proposed project will be subject.   |

**Table 3.7-8. Relevant Greenhouse Gas-Related Laws and Regulations**

| Project Component | Applicable Laws/Regulations   | GHG Reduction Measures Required for Project   |
|-------------------|---|---|
|                   | SB X7-7   | <p>Water provided to the proposed project will be affected by SB X7-7’s requirements for water suppliers.</p> <p>SB X7-7, or the Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency. It also requires, among other things, that the Department of Water Resources, in consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies.</p> |
|                   | CALGreen Code   | The proposed project is subject to CALGreen Code’s water efficiency standards, including a required 20% mandatory reduction in indoor water use. (CALGreen Code, Division 4.3.)   |
|                   | California Water Code, Division 6, Part 2.10, Sections 10910–10915. | Development and approval of the proposed project would require the development of a project-specific Water Supply Assessment assessing the projects water demand and its inclusion within the City’s urban water management plan.   |
|                   | Cap-and-Trade Program   | Electricity usage associated with water and wastewater supply, treatment and distribution would be subject to the Cap-and-Trade Program.  |
|                   | California RPS (SB X1-2, SB 350, SB 100)                            | Electricity usage associated with water and wastewater supply, treatment and distribution associated with the project will be required to comply with RPS set by SB X1-2, SB 350, and SB 100.   |

**Source:** Appendix B.

**Notes:** AB = Assembly Bill; CARB = California Air Resources Board; CEC = California Energy Commission; CFC = chlorofluorocarbon; CH<sub>4</sub> = methane; CO<sub>2</sub> = carbon dioxide; CO<sub>2</sub>e = carbon dioxide equivalent; CPUC = California Public Utilities Commission; EO = Executive Order; EPA = Environmental Protection Agency; GHG = greenhouse gas; GWP = global warming potential; HCFC = hydrochlorofluorocarbon; HFC = hydrofluorocarbon; gpm = gallons per minute; MT = metric tons; N<sub>2</sub>O = nitrous oxide; NHTSA = National Highway Traffic Safety Administration; PM = particulate matter; RPS = Renewable Portfolio Standard; RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SB = Senate Bill; SANDAG = San Diego Association of Governments; VOC = volatile organic compound; ZEV = zero emission vehicle

As shown, the proposed project would be consistent with and would not conflict with the applicable GHG-reducing strategies of the state that apply to the construction and operational components.

In addition, the proposed project would help support achievement of the statewide 2030 goal (as codified in SB 32) and the long-term, carbon neutrality 2045 goal (as set forth in EO B-55-18) by being infill development with access to multi-modal transportation options and incorporating features such as electric vehicle charging stations, bicycle infrastructure, transportation demand management, electric water heaters, smart landscaping irrigation, and an urban tree canopy.

### Consistency with SANDAG's RTP/SCS

At the regional level, SANDAG's RTP/SCS has been adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the San Diego region. In December 2021, SANDAG adopted its RTP/SCS (The 2021 Regional Plan), which shows the San Diego region reduced per capita CO<sub>2</sub> emissions by 17.9% in 2020 compared to 2005 baseline, which exceeds the 2020 target set for SANDAG of 15% reduction. Implementation of the RTP/SCS is estimated to result in a 20% CO<sub>2</sub> emissions reduction for cars and light-duty trucks by 2035, exceeding the 19% target from 2005 levels set by CARB. The RTP/SCS does not regulate land use or supersede the exercise of land use authority by SANDAG's member jurisdictions, but it is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns and the corresponding GHG emissions.

For purposes of the RTP/SCS consistency evaluation, the proposed project would increase access to transit because it is located approximately 0.6 miles from the Palomar College Sprinter station, and two bus stops are located in front of the project site off South Las Posas Road.<sup>3</sup> The proposed project would provide connectivity by extending the sidewalk to neighboring communities, the shopping center across South Las Posas Road, the bus station, and the Sprinter station. The project site's proximity to State Route 78 further allows for easy regional connectivity to employment centers, shopping areas, and recreation opportunities. Furthermore, the project would be required to implement applicable measures in the City's 2020 CAP Consistency Checklist (see Appendix B), installing electric vehicle charging stations, installing bicycle infrastructure, implementing a Transportation Demand Management plan, and reducing parking near transit. These measures would further reduce the project's GHG emissions from vehicle trips, increase access to transit, and encourage alternative modes of transportation. The proposed density, land use type, and location are consistent with the SANDAG's RTP/SCS, which increases access to transit and promotes regional connectivity to employment centers, shopping areas, and recreation opportunities. The features mentioned above would help facilitate alternative transit usage and reduce the overall vehicle trips, thereby reducing the project's regional GHG emissions.

Based on the considerations outlined above, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and potential impacts would be less than significant, and no mitigation measure is required.

### 3.7.5 Mitigation Measures

The project would not result in significant impacts; therefore, no mitigation is required.

### 3.7.6 Conclusion

As presented in Section 3.7.4 above, the proposed project would generate approximately 3,864 MT CO<sub>2</sub>e per year. The proposed project would result in fewer GHG emissions than allowed development under the existing land use designation and would implement all applicable Checklist items within the City's 2020 CAP. Therefore, the proposed project would be consistent with the City's 2020 CAP. Furthermore, the proposed project would be consistent with

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<sup>3</sup> The City uses the North County Transit District for Coaster rail service, Sprinter light-rail service, and Breeze bus service for connections throughout the County of San Diego. Sprinter service operates between Escondido and Oceanside with connections to Interstate 5 and the Coaster rail service operating out of the City of Oceanside. The North County Transit District operates the Palomar College Sprinter, which is within a short walk from the project area. In addition, a bus stop is located in front of the project site. Connections to Orange County can be made via the Metrolink in the City of Oceanside. Similarly, connections to Riverside Transit Authority buses can be made via the transit station in Oceanside and Escondido. Both the Metrolink connection in Oceanside and the Riverside Transit Authority Bus connection in Oceanside and Escondido are accessible through Sprinter light-rail service. These public transit options will offer residents of the project area quick access to a variety of alternative modes of transportation.

and would not conflict with the applicable GHG-reducing strategies of the state, would be consistent with CARB's Scoping Plan, and would be consistent with SANDAG's RTP/SCS. In summary, impacts with regard to GHG emissions would be less than significant, and no mitigation is required.

## 3.8 Hazards and Hazardous Materials

This section describes the existing hazards and hazardous materials within the vicinity of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Information from the Phase I Environmental Site Assessment (ESA), prepared for the proposed project by GEOTEK, on August 20, 2020, was used in preparation of this section and is included as Appendix H to this environmental impact report (EIR).

Table 3.8-1 summarizes the hazards and hazardous materials and cumulative-level impact analysis, by threshold, for the proposed project.

**Table 3.8-1. Hazards and Hazardous Materials Summary of Impacts**

| Threshold of Significance   | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|---|-----------------------|-------------------------|----------------------------|
| No. 1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste, within one-quarter mile of an existing or proposed school.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area. | Less than Significant | Less than Significant   | Less than Significant      |
| No. 6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.   | Less than Significant | Less than Significant   | Less than Significant      |

### 3.8.1 Existing Conditions

This section describes the existing conditions on the project site related to hazards and hazardous materials. The Phase I ESA assesses the likelihood of any recognized hazardous substances or petroleum products that might be present on site as a result of current or historical land uses or adjacent uses. The Phase I ESA included a review of the

historical records of the project site, a site reconnaissance of the project site, reconnaissance of adjoining properties, a Vapor Encroachment Screen for the project site, and a limited soil investigation, including soil matrix sampling.

Hazardous materials include solids, liquids, or gaseous materials that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, could pose a threat to human health or the environment. Hazards with all existing development or construction of development include the risks associated with potential explosions, fires, or release of hazardous substances in the event of an accident or natural disaster, which may cause or contribute to an increase in mortality or serious illness or pose substantial harm to human health or the environment.

#### **Description of Site and Surrounding Area**

The approximately 33.2-acre project site is an undeveloped lot located in the western portion of the City of San Marcos (City) in an urbanized area. The project site is located in an area largely characterized by retail/commercial and industrial facilities, with Bradley Park located across from the site's southwestern corner. The project site is bounded by La Mirada Drive, and numerous commercial/industrial facilities to the north; South Las Posas Road and the Grand Plaza shopping center to the east; Linda Vista Drive and several commercial/industrial facilities to the south; and South Pacific Street and several industrial facilities to the west.

Visual evidence of hazardous substances and wastes were not observed during the project site reconnaissance, and no visual indication of spills or leaks were observed. No other pungent or acrid odors were observed emanating from the project site. Additionally, there was no evidence of underground or above-ground fuel storage tanks or equipment that may contain poly-chlorinated biphenyls (Appendix H).

#### **Site and Surrounding Area History**

In order to construct the history of the project site and the surrounding area, the Phase I ESA reviewed reasonably ascertainable public documents, including aerial photographs, topographic maps, building records, city directories, fire insurance maps, and county assessor history records.

#### **Project Site History**

GEOTEK reviewed aerial photographs dated 1939, 1946, 1953, 1964, 1967, 1970, 1979, 1985, 1989, 1990, 1994, 2005, 2009, 2012, 2016 and 2018 (see Appendix H). In each photograph, the project site appears to be vacant and undeveloped land.

GEOTEK reviewed the Escondido Quadrangle (15-minute series), dated 1893; the Escondido Quadrangle (15-minute series), dated 1901; the Escondido Quadrangle (15-minute series), dated 1947; the San Marcos and Rancho Santa Fe Quadrangles (7.5-minute series), dated 1948; the San Marcos and Rancho Santa Fe Quadrangles (7.5-minute series), dated 1949; the Rancho Santa Fe and San Marcos Quadrangles (7.5-minute series), dated 1968; the San Marcos and Rancho Santa Fe Quadrangles (7.5-minute series), dated 1983; the Rancho Santa Fe and San Marcos Quadrangles (7.5-minute series), dated 1993; and the Rancho Santa Fe and San Marcos Quadrangles (7.5-minute series), dated 2012 (see Appendix H). The project site appears to be vacant land on all of the topographic map sheets reviewed for this assessment. The 2012 topographic map sheet shows little detail other than streets in the vicinity (see Appendix H).

## Surrounding Area History

GEOTEK reviewed aerial photographs dated 1939, 1946, 1953, 1964, 1967, 1970, 1979, 1985, 1989, 1990, 1994, 2005, 2009, 2012, 2016, and 2018 (see Appendix H).

The surrounding properties appear to be vacant and undeveloped land in the 1939, 1946, and 1964 aerial photographs.

Residential structures can be observed to the west and north in the aerial photographs dated 1964, 1967, and 1970. The remaining surrounding properties appear to be vacant land. Commercial structures can be observed to the west, north and south in the aerial photographs dated 1979, 1985, 1989, 1990, 1994, and 2005. The property to the east appears to be vacant land.

The surrounding properties appear similar to current conditions in the 2009, 2012, 2016, and 2018 aerial photographs.

GEOTEK reviewed the Escondido Quadrangle (15-minute series), dated 1893; the Escondido Quadrangle (15-minute series), dated 1901; the Escondido Quadrangle (15-minute series), dated 1947; the San Marcos and Rancho Santa Fe Quadrangles (7.5-minute series), dated 1948; the San Marcos and Rancho Santa Fe Quadrangles (7.5-minute series), dated 1949; the Rancho Santa Fe and San Marcos Quadrangles (7.5-minute series), dated 1968; the San Marcos and Rancho Santa Fe Quadrangles (7.5-minute series), dated 1983; the Rancho Santa Fe and San Marcos Quadrangles (7.5-minute series), dated 1993; and the Rancho Santa Fe and San Marcos Quadrangles (7.5-minute series), dated 2012 (see Appendix H).

The surrounding properties appear to be vacant land on the 1893 topographic map sheet. A structure can be observed to the north of the site on the 1901 topographic map sheet. The surrounding properties appear to be vacant land on the 1947, 1948, and 1949 topographic map sheets. Structures can be observed to the north and west on the 1968 topographic map sheet. Structures can be observed to the north, west and south on the 1983 topographic map sheet. The surrounding properties appear to be developed on the 1996 topographic map sheet. The 2012 maps show little detail other than streets in the vicinity (see Appendix H).

## Historical Use Summary

Based on readily available historic information, the project site appears to have been vacant and undeveloped land since at least 1939. The surrounding properties appear to historically have been vacant land from at least 1939 to at least 1953. Numerous structures can be observed to the north, west and south in an aerial photograph dated 1979.

Data gaps exist from 1901 to 1939, 1939 to 1946, 1953 to 1964, 1970 to 1979, and 1996 to 2005 due to the limited records that are reasonably obtainable in the local area. However, according to Appendix H, additional historic information, if it were to become available, is likely insignificant and not likely to change the impact determination herein.

## Regulatory Database Review

As explained in Appendix H, GEOTEK obtained and reviewed an environmental database report of the federal and state environmental records specified by international standard practice guidance (ASTM E 1527-13). The database report was provided by Environmental Data Resources Inc. of Shelton, Connecticut, and tracks the presence of underground storage tanks (USTs), hazardous waste generation, and hazardous waste generators, or other environmental concerns, such as spills, leaks, or aboveground tanks. Table 3.8-2 shows that neither the project site nor adjacent sites were listed on any of these regulatory databases.

**Table 3.8-2. Environmental Database**

| Environmental Database   | Minimum Search Distance (miles) | Site | Adjacent | Total Listed |
|--|---------------------------------|------|----------|--------------|
| U.S. Environmental Protection Agency (EPA) – National Priorities List (NPL), including delisted NPL  | 1.0                             | No   | 0        | 0            |
| EPA – Superfund Enterprise Management System (SEMS), including archived sites (formerly CERCLIS)   | 0.5                             | No   | 0        | 2            |
| EPA – Resource Conservation and Recovery Act (RCRA), Corrective Action Facilities (CORRACTS)   | 1.0                             | No   | 0        | 2            |
| EPA – RCRA, Transportation, Storage, and Disposal facilities (TSD)   | 0.5                             | No   | 0        | 1            |
| EPA – RCRA Generators  | Site and Adjacent               | No   | 0        | 18           |
| EPA – Emergency Response Notification System (ERNS)  | Site                            | No   | N/A      | 0            |
| Federal Institutional control/engineering control registries   | 0.5                             | No   | 0        | 0            |
| California Environmental Protection Agency (CEPA) – State Response Sites (Response, formerly Annual Work Plan and Bond Expenditure Plan)                     | 1.0                             | No   | 0        | 0            |
| CEPA – EnviroStor Database (formerly CALSITES)   | 0.5                             | No   | 0        | 5            |
| CEPA – CHMIRS – California Hazardous Materials Information Reporting System  | Site                            | No   | No       | 0            |
| CEPA – Solid Waste Fill/Landfill (SWF/LF), Solid Waste Assessment Test (SWAT)/Waste Management Unit Database System (WMUDS) and Recycling Facilities (SWRCY) | 0.5                             | No   | 0        | 6            |
| CEPA – Leaking Underground Storage Tanks (LUST)  | 0.5                             | No   | 0        | 44           |
| CEPA – Underground Storage Tanks (UST), including historic USTs  | Site and Adjacent               | No   | 0        | 23           |
| CEPA – Spills, Leaks, Investigations & Cleanup Cost Recovery Listing (SLIC)  | 0.5                             | No   | 0        | 15           |
| State Institutional control/engineering control registries   | Site                            | No   | N/A      | 0            |
| Local and/or Tribal databases  | Up to 1.0                       | No   | 0        | 0            |
| Drycleaners  | 0.25                            | No   | 0        | 0            |
| Other databases  | Up to 1.0                       | No   | 0        | 0            |
| Unmappable facilities  | Up to 1.0                       | No   | 0        | 0            |

**Source:** Appendix H.

**Note:** N/A = not applicable.

### National Priority List

The National Priority List (NPL) is the Environmental Protection Agency (EPA) list of confirmed or proposed Superfund sites. The Phase I ESA reviewed the NPL list for confirmed or proposed Superfund sites, and for sites that have been delisted from the NPL, which occur within 1 mile of the project site. The project site does not appear on the NPL. There are no other facilities on the NPL within 1 mile of the project site.



### Superfund Enterprise Management System

The Superfund Enterprise Management System (SEMS, formerly CERCLIS) is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances. The Phase I ESA reviews current and archived SEMS sites within a 0.5-mile distance of the project site.

The project site does not appear on the SEMS or SEMS-ARCHIVE list. There are two facilities on the SEMS-ARCHIVE list within 0.5 miles of the project site. The first facility is listed as Moyer Chemical, located at 1227 Los Vallecitos. The facility is listed as being located 0.25 to 0.5 (0.352) miles northeast of the project site and at an elevation of 560 feet above mean sea level (msl) (20 feet higher in elevation relative to the project site). The second facility is listed as GEC Marconi Electronic Systems, located at 1370 San Marcos Boulevard. The facility is listed as being located 0.25 to 0.5 (0.460) miles south-southwest of the project site and at an elevation of 515 feet above msl (25 feet lower in elevation relative to the project site).

Due to the listings, distance, locations downgradient from the project site, and/or facility status as an archive facility (SEMS-ARCHIVE), these facilities are considered unlikely to represent an environmental concern to the project site.

### Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) compiles selective information on facilities that generate, transport, store, treat and or dispose of hazardous waste. RCRA facilities can be listed on one of the following databases:

- *Corrective Action Facilities* are facilities undergoing corrective action. A corrective action order is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.
- *Transportation, Storage, and Disposal Facilities* includes facilities that transport, store, or dispose of hazardous waste and are not listed on the RCRA Generators list. The Transportation, Storage, and Disposal facilities are searched within a 0.5-mile distance.
- *Generators List* identifies and tracks hazardous waste from the point of generation to the point is disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste. The RCRA generators list is searched for the project site and adjacent properties.

The project site does not appear on the Corrective Action Facilities list. There are two facilities on the list within 1 mile of the project site. The first facility is Signet Armorlite Inc. located at 1001 Armorlite Drive, which is 0.5 to 1.0 (0.611) miles east-northeast of the project site and 560 feet above msl (20 feet higher in elevation relative to the project site). Because violations have been corrected at the facility, this facility is considered unlikely to represent an environmental concern to the project site. The second facility is GEC Marconi Electronic Systems, located at 1370 San Marcos Boulevard. The facility is 0.25 to 0.5 (0.460) miles south-southwest of the project site and at 515 feet above msl (25 feet lower in elevation relative to the project site). Due to the listing's location downgradient from the project site and status of corrective action, this facility is considered unlikely to represent an environmental concern to the project site.

The project site does not appear on the RCRA Transportation, Storage, and Disposal Facilities list. There is one facility on the list within 0.5 miles of the project site. The facility is GEC Marconi Electronic Systems, located at 1370 San Marcos Boulevard. The facility is 0.25 to 0.5 (0.460) miles south-southwest of the project site and at 515 feet

above msl (25 feet lower in elevation relative to the project site). Due to the listing and location, as discussed above, this facility is considered unlikely to represent an environmental concern to the project site.

The project site does not appear on the RCRA Generators list. There are 18 facilities listed as a RCRA Generator within 0.25 miles of the project site. However, none of these facilities are located immediately adjacent the project site, and there is no history of violations at these facilities, with the exception of those listings discussed above. These facilities are therefore considered unlikely to represent an environmental concern to the project site.

### Emergency Response Notification System

The Emergency Response Notification System is a national database used to collect information on reported releases of oil or hazardous substances. The project site does not appear on this list.

### State Response Sites

The State Response Sites records are the state equivalent to the NPL database, described above. The project site does not appear on the State Response Sites list RESPONSE list, and there are no listed facilities within 1.0 mile of the project site.

### EnviroStor Database

The EnviroStor Database (formerly CALSITES) records are the state equivalent to the federal SEMS database, described above. The project site does not appear on the EnviroStor database. There are five EnviroStor facilities within 0.5 miles of the project site. Table 3.8-3 provides the facility name, address, location in relation to the project site, and the facility status.

**Table 3.8-3. EnviroStor Database Site**

| No. | Facility Name                                    | Address                   | Location in Relation to Site                    | Facility Status           |
|-----|--|---------------------------|---|---------------------------|
| 1   | Macdermid Printing Solutions                     | 260 South Pacific Street  | Less than 0.125 (0.011) miles WNW               | Inactive-Needs Evaluation |
| 2   | Hues Metal Finishing                             | 977 Linda Vista Drive     | 0.25 to 0.5 (0.441) miles E (Down-Gradient)     | Inactive-Needs Evaluation |
| 3   | Hughes Circuits Inc.                             | 540 South Pacific Street  | 0.125 to 0.25 (0.237) miles SW (Cross-Gradient) | Inactive-Needs Evaluation |
| 4   | Bae Systems (Former GEC Marconi, Singer Company) | 1370 San Marcos Boulevard | 0.25 to 0.5 (0.460) miles SSW (Cross-Gradient)  | Refer: RWQCB              |
| 5   | No. Co. Health Svcs.                             | Boardwalk and Park Place  | 0.25 to 0.5 (0.460) miles ESE (Down-Gradient)   | No Further Action         |

Source: Appendix H.

The Macdermid Printing facility appears to be listed in relation to a leaking underground storage tank case, which has been issued “Case Closed” regulatory status. Therefore, the facility is unlikely to represent an environmental concern to the project site. Due to their status listing and/or location, the remaining facilities do not represent an environmental concern to the project site.

## California Hazardous Material Incident Report System

The California Hazardous Material Incident Report Systems is a state database used to collect information on reported hazardous materials incidents (accidental leaks and spills). The project site does not appear on this list and there are no listed facilities located within 0.25 miles of the project site.

## Solid Waste Facilities List

The Solid Waste Fill/Landfill (SWF/LF), Waste Management Unit Database System (WMUDS)/Solid Waste Assessment Test (SWAT), and Solid Waste Recycling Facilities (SWRCY) databases include information pertaining to closed and open solid waste facilities operating in the state of California. The SWF/LF, WMUDS/SWAT and SWRCY databases are searched for a 0.5-mile distance. The project site does not appear on the WMUDS/SWAT, SWF/LF or SWRCY lists. There are no facilities on the SWRCY list within 0.5 miles of the project site.

There is one facility on the WMUDS/SWAT list within 0.5 miles of the project site. The facility is listed as San Marco (Old) Lind Vista LF, located at Rancho Santa Fe and Linda Vista. The facility is listed as being located 0.25 to 0.5 (0.276) miles west of the project site and at an elevation of 548 feet above msl (8 feet higher in elevation relative to the project site).

There are four facilities on the SWF/LF list within 0.5 miles of the project site. The first facility is listed as Mashburn Sanitation, located at 224 Las Posas Road. The facility is listed as being located less than 0.125 (0.075) miles east-northeast of the project site and at an elevation of 544 feet above msl (4 feet higher in elevation relative to the project site). The facility status is listed as “active.”

The second facility is listed as Mashburn Sanitation, located at 224 South Las Posas Road. The facility is listed as being located less than 0.125 (0.075) miles east-northeast of the project site and at an elevation of 544 feet above msl (4 feet higher in elevation relative to the project site). The facility status is listed as “active.” This facility appears to be the same as the first facility listed above.

The third facility is listed as EDCO Waste & Recycling, located at 224 South Las Posas Road. The facility is listed as being located less than 0.125 (0.075) miles east-northeast and at an elevation of 544 feet above msl (4 feet higher in elevation relative to the project site). The facility status is listed as “active.” This facility appears to be the same as the first and second facilities listed above.

The fourth facility is listed as Old San Marco LF (Bradley Park), located at Linda Vista Drive and Rancho Santa Fe Road. The facility is listed as being located 0.25 to 0.5 (0.277) miles west of the project site and at an elevation of 544 feet above msl (4 feet higher in elevation relative to the project site). The facility status is listed as “closed.”

Due to their status listing and location, these facilities are unlikely to represent an environmental concern to the project site.

## Leaking Underground Storage Tanks List

The California Leaking Underground Storage Tanks (LUST) list is a compilation of petroleum storage tank sites that have reported a release. The LUST list is searched for a 0.5-mile distance. The project site does not appear on the LUST list.

There are 44 facilities listed as being on the LUST list within 0.5 miles of the project site. Appendix H provides a detailed table with the facility name, address, location in relation to the project site and the facility status.

Due to their status listings and location, these facilities do not represent an environmental concern to the project site.

#### Underground Storage Tanks List

The California UST list is a compilation of petroleum storage tank sites that are registered with the state of California. The UST list is searched for the project site and adjacent properties. The project site did not appear on the UST list or historic UST list.

There are six facilities listed on the UST list and the 17 facilities on the historic UST list in proximity to the project site. However, none of these facilities are immediately adjacent to the project site or upgradient. Therefore, they are not considered unlikely to represent an environmental concern to the project site.

#### Spills, Leaks, Investigation, and Cleanup Cost Recovery Listing

The Spills, Leaks, Investigation and Cleanup Cost Recovery Listing database is compiled by the California Regional Water Quality Control Board, San Ana Region. It is designed to protect and restore water quality from spills, leaks, and similar discharges. The project site does not appear on this list.

There are 15 facilities listed within a 0.5-mile distance of the project site. Appendix H provides a detailed table that lists the facility name, address, location in relation to the project site and the facility status. Due to their status listings, these facilities are unlikely to represent an environmental concern to the project site.

#### State Institutional Control/Engineering Control Registries

The State of California maintains institutional and engineering control databases or registries, which list sites with engineering or institutional controls in place. Institutional controls include administrative measures intended to prevent exposure to contaminants remaining on site. Engineering controls include various forms of caps, building foundations, liners, and treatment methods. The subject project site does not appear on the State Institutional Control/Engineering Control Registries.

#### Tribal Databases

Tribal governments are under the jurisdiction of the EPA for environmental concerns. Currently, the EPA Region 9 publishes LUST and UST information for tribes in Arizona, California, Hawai'i, Nevada, and the Pacific Territories. The LUST database is searched for 0.5 miles, and the UST database is searched for 0.25 miles.

The project site does not appear on the Tribal LUST or UST databases. No facilities were identified on the Tribal LUST or UST databases within 0.5 miles of the project site.

#### Other Databases

Environmental Data Resources Inc. compiles information from multiple federal, state, local, and proprietary databases. Most are secondary or tertiary or redundant. Facilities compiled on these other databases are evaluated based on the severity of the listing, distance, and location.

The project site does not appear on the environmental database report obtained for this assessment. There are no facilities on the other databases within the appropriate search distances stipulated by ASTM E 1527-13.

### Dry Cleaners

The DRYCLEANERS list is compiled and provided by Environmental Data Resources Inc. The DRYCLEANER database is searched for a 0.25-mile distance.

The project site does not appear on the DRYCLEANER list. There are no DRYCLEANER facilities listed within 0.25 miles of the project site.

### Unmappable Facilities

GEOTEK reviewed the listing of “orphan” or unmappable facilities in the database report. There are two unmapped facilities in the report. Based on the listings provided for the orphan facilities and the locations, these facilities are unlikely to represent an environmental concern to the project site.

### Local Regulatory Agency Records

GEOTEK contacted the San Marcos Fire Department (SMFD) and the County of San Diego Sherriff Department regarding underground or aboveground storage tanks, hazardous material permits or business plans, emergency responses, spills, inspections, or other information of an environmental or hazardous nature. Neither of these agencies had any information for the project site.

### Vapor Encroachment Screening

The purpose of a Vapor Encroachment Screen is to identify, to the extent feasible, if a Vapor Encroachment Condition exists at the project site.

A Vapor Encroachment Screen Report was generated for the project site and project site area utilizing EDR’s Vapor Encroachment Worksheet (see Appendix H). It was determined that there are no historical dry cleaners or auto stations within 600 feet and/or up gradient from the project site.

According to Appendix H, a Vapor Encroachment Condition is not likely to exist at the subject project site. The Vapor Encroachment Screen report is included in Appendix H.

### Site Reconnaissance

A representative of GEOTEK conducted a project site reconnaissance on August 14, 2020. The rectangular shaped project site is currently comprised of four parcels of land (San Diego County Assessor’s Parcel Numbers 219-222-01-00, 219-222-02-00, 219-222-03-00, and 219-222-04-00) and encompasses a total of 33.2 acres. The project site can generally be accessed from either La Mirada Drive, South Las Posas Road, Linda Vista Drive or South Pacific Street.

The project site is currently vacant and undeveloped land. No visual evidence of hazardous substances and wastes were observed during the project site reconnaissance. No visual indication of spills or leaks were observed. No other pungent or acrid odors were observed emanating from the project site.

## Wildland Fire

The project site lies within an area considered a High Hazard Severity Zone, as designated by the City of San Marcos General Plan Safety Element, and a Non-Very High Hazard Severity Zone as designated by the California Department of Forestry and Fire Protection. Fire hazard designations are based on topography, vegetation, and weather, amongst other factors. The project site is within a developed City landscape, surrounded by urban land uses on all sides. The project site is not considered to meet the definitions of wildland given its urban location. Further, the site currently, and post-project, would not represent a significant wildfire hazard based on the flat terrain, fuel types, including low growing vegetation and vernal pools, which by definition, preclude the growth of heavier fuel types that could, over time, present a wildfire threat. The Fire Protection Plan (FPP) prepared for the project (Appendix N) follows the fire hazard determination made by the City.

An additional discussion of fire protection services and wildfire risk for the project site is discussed in Section 3.13, Public Services, and Chapter 5, Environmental Effects Found Not To Be Significant, of this EIR.

## 3.8.2 Regulatory Setting

This section details the federal, state, and local regulations governing hazards and hazardous materials.

### Federal

#### Chemical Accident Prevention Provision

Title 40 Part 68 of the Code of Federal Regulations sets forth a list of regulated substances and thresholds, the petition process for adding or deleting substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accident releases, and the state accidental release prevention programs approved under Section 112(r) of the Clean Air Act.

#### Federal Aviation Regulations, Notice of Proposed Construction or Alteration

The Federal Aviation Administration (FAA), which has primary responsibility for the safety of civil aviation, imposes height restrictions in order to prevent obstructions to navigable airspace to protect flights and surrounding structures. In certain cases, the FAA should be notified of proposed development pursuant to Section 77.11 of Federal Aviation Regulations. The notification of proposed development enables the FAA to do the following:

- Evaluate the effect of the construction or alteration on operational procedures and proposed operational procedures
- Determine the possible hazardous effect of the proposed construction or alteration of air navigation
- Provide recommendations for identifying the construction or alteration in accordance with current FAA Advisory Circular AC 70/7460-1K dated August 1, 2000, Obstruction Marking and Lighting
- Determine other appropriate measures to be applied for continued safety of air navigation
- Provide charting and other notification to airmen of the construction or alteration

Certain jurisdictions can request an FAA evaluation of proposed development when certain features appear to be potentially hazardous.

## Federal Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 provided a new set of mitigation plan requirements for state and local jurisdictions to coordinate disaster mitigation planning and implementation. States are encouraged to complete a “Standard” or an “Enhanced” Natural Mitigation Plan. “Enhanced” plans demonstrate increased coordination of mitigation activities at the state level, and, if completed and approved, increase the amount of funding through the Hazard Mitigation Grant Program. California’s updated State Hazard Mitigation Plan was adopted in October 2010 and approved by the Federal Emergency Management Agency Region IX. The City of San Marcos is one of the communities covered by the County of San Diego Multi-Jurisdictional Hazard Mitigation Plan, described below, which is a countywide plan that identifies risks posed by natural and human-made disasters.

## Hazardous Materials Transport

The U.S. Department of Transportation regulates transportation of hazardous materials between states. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers for transportation of hazardous waste on public roads, including explosives that may be used for blasting.

## International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what protective measures are required for fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

## Resource Conservation and Recovery Act

RCRA gives the EPA authority to control hazardous waste during the generation, transportation, treatment, storage, and disposal of the waste. RCRA also sets forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

## Hazardous and Solid Waste Amendments of 1984

The Hazardous and Solid Waste Amendments of 1984 Amends the Solid Waste Disposal Act (as amended by the Resource Conservation and Recovery Act of 1976) to authorize appropriations for FY 1985 through 1988 for: (1) general administration by the Administrator of the EPA to carry out such Act (including funds for Resource Recovery and Conservation Panels, hazardous waste management, and support for State, regional, local, and interstate agency solid waste plans); (2) grants to State hazardous waste programs; (3) the hazardous waste site inventory; (4) development and implementation of plans by State, local, regional, and interstate authorities; (5) implementation of State, local, and intermunicipal programs for solid waste management, resource recovery, resource conservation, and hazardous waste management; (6) special communities assistance; (7) assistance to States for recycled oil programs; (8) the Secretary of Commerce to carry out resource and recovery duties; (9)

additional EPA officers or employees to conduct criminal investigations under such Act and for support costs for such additional criminal investigators; (10) underground storage tank regulation; (11) grants to States for State underground storage tank release detection, prevention, and correction programs; (12) small quantity generator waste education programs; (13) State and other programs requiring compliance with open dumping/sanitary landfill criteria by solid waste management facilities within 36 months after enactment of this Act; and (14) the National Ground Water Commission. In general, both the scope and requirements of the Amendments, as amended by RCRA, were significantly expanded and reinforced.

### State

The state regulations that govern hazardous materials are equal to or more stringent than federal regulations. California has been granted primary oversight responsibility by the EPA to administer and enforce hazardous waste management programs. State regulations have detailed planning and management requirements to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key state laws pertaining to hazardous wastes are discussed below. In addition, the Department of Toxic Substance Control, the State Water Resources Control Board, and the Integrated Waste Management Act also regulate the generation of hazardous materials, also described below.

#### California Emergency Services Act

The California Emergency Services Act provides the basic authority for conducting emergency operations following a proclamation of emergency by the governor and/or appropriate local authorities. Local government and district emergency plans are considered to be extensions of the California Emergency Plan, established in accordance with the Emergency Services Act.

#### California Fire Code

The California Fire Code (CFC) is Chapter 9 of Title 24 of the California Code of Regulations. The Code is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years. SMFD has adopted the CFC by reference in its own Fire Code.

#### California Health and Safety Code, Hazardous Materials Release Response Plans and Inventory

Pursuant to California Health and Safety Code, Chapter 6.95, the California Department of Environmental Health implements the Hazardous Materials Business Plan program and the California Accidental Release Program in San Diego County. The Hazardous Materials Business Plan and California Accidental Release Program programs provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a Hazardous Materials Business Plan or Risk Management Plan is required pursuant to the regulation. Congress requires EPA Region 9 to make risk management plan information available to the public through the EPA's Envirofacts Data Warehouse.



### California Integrated Waste Management Act

This act requires the development and implementation of household hazardous waste disposal plans. The Department of Resources Recycling and Recovery, formerly the California Integrated Waste Management Board, oversees compliance with this act and enforces operational plans for solid waste facilities.

### Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including California EPA, California Highway Patrol, the California Department of Fish and Wildlife, and the Regional Water Quality Control Board.

### Emergency Services Act

Under the Emergency Services Act (California Government Code Section 8850 et seq.), the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Quick response to incidents involving hazardous materials or hazardous waste is a key element of this plan. The Governor's Office of Emergency Services administers the plan, coordinating the responses of other agencies, including EPA, California Highway Patrol, Regional Water Quality Control Boards, air quality management districts, and county disaster response offices.

### Government Code Section 65962.5 (Cortese List)

The provisions of Government Code Section 65962.5 are commonly referred to as the Cortese List. The Cortese List is a planning document used by the state and local agencies to provide information about hazardous materials release sites. Government Code Section 65962.5 requires California EPA to develop an updated Cortese List annually, at minimum. The Department of Toxic Substance Control is responsible for a portion of the information contained in the Cortese List. Other California state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

### Hazardous Waste Control Act

The Hazardous Waste Control Act is implemented by regulations contained in California Code of Regulations Title 26 that describe requirements for the proper management of hazardous wastes. The act created the state hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The Hazardous Waste Control Act and Title 26 regulations list more than 800 potentially hazardous materials and establish criteria for identifying, packaging, transporting, and disposing of such wastes. Under these regulations, the generator of hazardous waste material must complete a manifest that accompanies the material from the point of generation to transportation to the ultimate disposal location, with copies of the manifest filed with the Department of Toxic Substance Control.

### Unified Program

The California EPA delegates to qualifying local agencies oversight and permitting responsibility for certain state programs pertaining to hazardous waste and hazardous materials. This is achieved through the Unified Program,

created by state legislation in 1993 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following emergency and management programs:

- Hazardous materials release response plans and inventories (business plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure plans
- Hazardous Waste Generator and On-site Hazardous Waste Treatment (tiered permitting) Programs
- California Uniform Fire Code: Hazardous material management plans and hazardous material inventory statements

The County of San Diego is the designated certified unified program agency for all local jurisdictions within the San Diego region, including San Marcos.

#### State Responsibility Area Fire Safe Regulations (California Code of Regulations, Title 14 Natural Resources, Department of Forestry Fire Protection)

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in State Responsibility Areas. Title 14 regulates that the future design and construction of structures, subdivisions, and developments in State Responsibility Areas shall provide for basic emergency access and perimeter wildfire protection measures.

#### Local

##### Airport Land Use Commission and Airport Land Use Compatibility Plans

Airport Land Use Commissions assist local agencies in ensuring compatible land uses in the vicinity of existing or proposed airports; coordinate planning at state, regional, and local levels; prepare and adopt airport land use policies; review plans or regulations submitted by local agencies; and review and make recommendations regarding the land use, building heights, and other issues related to air navigation safety. The San Diego County Regional Airport Authority is the Airport Land Use Commission for the San Diego region.

The closest airport to the project site is the McClellan-Palomar Airport, which operates under its own Airport Land Use Compatibility Plan. The project site is not located within any of the McClellan-Palomar Airport Influence Areas (San Diego County Regional Airport Authority 2011).

##### County of San Diego Multi-Jurisdictional Hazard Mitigation Plan

To comply with the Disaster Mitigation Act of 2000, the County of San Diego prepared the Multi-Jurisdictional Hazard Mitigation Plan. The plan serves as both a county-wide plan and a plan for local jurisdictions that identifies risks posed by natural and human-made disasters before a hazard event occurs. The plan includes overall goals and objectives shared by many jurisdictions, as well as specific goals, objectives, and mitigation action items for each of the participating jurisdictions to help minimize the effects of the specified hazards that could potentially affect their jurisdiction. Goals, objectives, and action items for the City of San Marcos are included in this plan (County of San Diego 2017).

## San Marcos Fire Department Hazard Risk Analysis and Wildland Urban Interface Community Wildfire Protection Plan

The Community Wildfire Protection Plan, adopted in December 2007 (San Marcos Fire Department 2007), was developed by the SMFD with guidance from the County of San Diego, California Department of Forestry and Fire Protection and the United States Forest Service. The Community Wildfire Protection Plan supplements San Diego County, Department of Planning and Land use documents. SMFD also published the Hazard Risk Analysis for internal City use, incorporating new and existing information relating to wildfire risk within the City to better quantify true risk and management needs. The Hazard Risk Analysis quantifies, clarifies, and manages the wildland urban interface responsibility and meets the requirements of the federal Healthy Forests Restoration Act of 2003 for community fire planning.

### City of San Marcos, Ordinance 2003-1216

The City Ordinance 2003-1216 amends Chapter 17.64 of the Municipal Code to adopt the most recent version of the California Fire Code. This ordinance also requires all buildings or structures to provide and maintain an effective fuel modification zone of 150 feet.

### City of San Marcos General Plan

#### Safety Element

The Safety Element of the San Marcos General Plan contains the following goals and policies pertaining to hazards and hazardous materials that apply to the proposed project:

Goals S-3: Minimize injury, loss of life, and damage to property resulting from structure or wildland fire hazards.

Policy S-3.1: Require development to be located, designed and constructed to provide adequate defensibility and reduce the risk of structural loss and life resulting from wildland fires. Development will consider hazards relative to terrain, topography, accessibility and proximity to vegetation. One such provision for development to minimize the risk of structural loss and life shall be the inclusion of overhead fire sprinklers.

Policy S-3.2: Provide sufficient level of fire protection service to reduce risk from urban and wildland fire. Advocate and support regional coordination among fire protection and emergency service providers.

Policy S-3.3: Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.

Policy S-3.4: Coordinate with fire protection and emergency service providers to assess fire hazards before and after wildfire events to adjust fire prevention and suppression needs, as necessary, commensurate with both short- and long-term fire prevention needs.

Goal S-4: Protect life, structures, and the environment from the harmful effects of hazardous materials and waste.

Policy S-4.1: Promote and support the proper disposal, handling, transport, delivery, treatment, recovery, recycling, and storage of hazardous materials in accordance with applicable federal, State, and local regulations.

Policy S-4.2: Require areas of known or suspected contamination to be assessed prior to reuse or redevelopment. Plan for reuse of contaminated areas in a manner that is compatible with the nature of the contamination and subsequent remediation efforts.

Policy S-4.3: Require areas of known or suspected contamination to be assessed prior to reuse or redevelopment. Plan for reuse of contaminated areas in a manner that is compatible with the nature of the contamination and subsequent remediation efforts.

Policy S-4.4: Avoid locating sensitive uses near established hazardous materials users or industrial areas where incompatibilities would result, except in cases where appropriate safeguards have been developed and implemented.

Goal S-5: Establish and maintain an effective emergency response program to respond to disasters and maintain continuity-of-life support functions during an emergency.

Policy S-5.3: Develop, implement, and maintain an effective evacuation program for areas of risk in the event of a disaster.

Goal S-7: Comply with the McClellan-Palomar Airport Land Use Compatibility Plan.

Policy S-7.1: Record an overflight notification document in association with the approval of any new residential land use within the AIA overflight notification area consistent with the ALUCP.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10, the proposed project is consistent with the overall goals and policies of the General Plan pertaining to hazards and hazardous materials.

### 3.8.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous material would occur if the project would:

Threshold No. 1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Threshold No. 2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Threshold No. 3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Threshold No. 4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment.

Threshold No. 5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.

Threshold No. 6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Threshold No. 7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

### 3.8.4 Project Impact Analysis

Impacts related to hazards and hazardous materials as a result of development of the proposed project are analyzed below.

***Threshold No. 1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Construction of the proposed project would entail transport, use, or disposal of potentially hazardous materials including, but not limited to, diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, lubricant oils, adhesives, human waste, and chemical toilets. Direct impacts to human health and biological resources from accidental spills of small amounts of hazardous materials from construction equipment could occur with the transport, use, or disposal of these materials. However, existing federal and state standards related to the handling, storage, and transport of these materials would be implemented during construction of the proposed project. These regulations include the Federal Chemical Accident Prevention Provisions (Part 68 of the Code of Federal Regulations), California Highway Patrol and California Department of Transportation container and licensing requirements for transportation of hazardous waste on public roads, the International Fire Code, the Resource Conservation and Recovery Act of 1976 as amended by the Hazardous and Solid Waste Amendments of 1984, California's Hazardous Waste Control Law, California Fire Code, California Health and Safety Code Hazardous Materials Release Response Plans and Inventory, California Integrated Waste Management Act, regulations developed by California Occupations Safety and Health Administration, and the state Hazardous Waste Control Act.

During operation of the proposed project, the only hazardous materials anticipated for transport, use, or disposal associated would be routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products, typical of residential uses. The use, handling, and disposal of these products is addressed by household hazardous waste programs that are part of the Integrated Waste Management Plan of the County of San Diego. The Household Hazardous Waste Element of the Integrated Waste Management Plan specifies the means by which hazardous wastes generated by households shall be collected, recycled, treated, and disposed of safely (County of San Diego 2005).

The proposed project's compliance with all standards required through federal, state, county, and municipal regulations, in addition to project-specific plans reviewed by the City, would ensure potential impacts to the public or the environment through routine transport, use, or disposal of hazardous materials would not be substantial. Furthermore, hazards associated with development and operation of the proposed project would likely be less than that associated with industrial development, which is the current designated land use/zoning for the project site. Therefore, impacts of the proposed project are determined to be less than significant.

***Threshold No. 2. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

As discussed under Threshold 1, construction of the proposed project would entail transport, use, or disposal of potentially hazardous materials including, but not limited to diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, lubricant oils, adhesives, human waste, and chemical toilets. As described above, the proposed project would be required to comply with all standards required through federal, state, county, and municipal regulations, in addition to project-specific plans review by the City, which would ensure potential impacts related to hazardous materials would not be significant. Furthermore, hazards associated with development and operation of the proposed project would likely be less than that associated with industrial development, which is the current designated land use/zoning for the project site.

The proposed project would be limited to multifamily residences, residential amenities, and open space uses, which are not typically characteristic of generating, releasing, or using large amounts of hazardous materials. During operations of the proposed project, the only hazardous materials anticipated for transport, use, or disposal are routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products. The use, handling, and disposal of these products are addressed by household hazardous waste programs that are part of the Integrated Waste Management Plan of the County of San Diego, and therefore the proposed project is not expected to create a significant hazard to the public or environment through hazardous upsets or accidents. For these reasons, the proposed project is not expected to result in potential upset and accident conditions involving release of hazardous materials in the environment. Impacts would be less than significant.

***Threshold No. 3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

The project site is located within 0.25 miles of an existing or proposed school. The closest school to the project site is TERI Country School, located approximately 0.2 miles southeast of the project site. However, the proposed project is not expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste beyond routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products. Residential use of the project site is also expected to handle fewer hazardous materials and emit reduced hazardous emissions compared to industrial uses planned under the current Industrial use zoning designation for the project site. Therefore, proposed project impacts would be less than significant.

***Threshold No. 4. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment?***

As part of the Phase I ESA prepared for the proposed project (Appendix H) a database search report was completed, which documents various federal, state, and local regulatory database searches regarding properties with known or suspected releases of hazardous materials, chemical handlers, and/or polluters. The proposed project site is not located on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. Therefore, this impact would be less than significant.

***Threshold No. 5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?***

The closest airport to the project site is the McClellan-Palomar Airport, which is located approximately 5 miles west of the project site. The project site is not located within any of the McClellan-Palomar Airport Influence Areas (San Diego County Regional Airport Authority 2011). Therefore, this impact would be less than significant.

***Threshold No. 6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

According to the General Plan Safety Element, the San Marcos Emergency Operations Plan governs the operations of the City during a disaster. This plan addresses response to moderate evacuation scenarios, including the identification of evacuation points and general routes (City of San Marcos 2012).

The proposed project would be required to abide by the standards set forth in the San Marcos Emergency Operations Plan. Implementation of the proposed project is not expected to impact any roadway or staging areas that are identified in any emergency planning documents and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As required under the California Fire Code, the proposed project would be required to present development plans that afford fire and emergency responders suitable fire access roads dimensions and surfaces (Chapter 5, Section 503.1 through Section 503.4 of the California Fire Code), an adequate number of emergency rated entrances to the community (Appendix D, Section D106 of the California Fire Code), and entryway gate access for first responders (Chapter 5 of the California Fire Code, Section 503.6). The proposed points of entry and private driveways will be reviewed by SMFD and would be required to meet the qualifications for emergency access to and from the project site. Furthermore, as described in FPP prepared for the proposed project (Appendix N to this EIR), it is determined that SMFD could provide emergency response to the project site within its internal 7-minute response time from fire stations 1 and 2, and Vista Fire Department Station 4 could provide an approximate 7-minute response to the project site and would respond per mutual aid agreements, if needed. Therefore, it is determined that impacts related to emergency response or emergency evacuation as a result of the proposed project would be less than significant.

***Threshold No. 7: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

As described in the FPP prepared for the project (Appendix N to this EIR), the project site lies within an area considered a High Hazard Severity Zone, as designated by the City of San Marcos General Plan Safety Element, and a Non-Very High Hazard Severity Zone as designated by the California Department of Forestry and Fire Protection. Fire hazard designations are based on topography, vegetation, and weather, amongst other factors. The project site is within a developed City landscape, surrounded by urban land uses on all sides. The project site is not considered to meet the definitions of wildland given its urban location. Further, the site currently, and post-project, would not represent a significant wildfire hazard based on the flat terrain, fuel types, including low growing vegetation and vernal pools, which by definition, preclude the growth of heavier fuel types that could, over time, present a wildfire threat.

The project site is an undeveloped lot that is relatively flat and shows signs of previous disturbance. The proposed project redesignation of the project site from Industrial to Residential use would likely reduce the potential for wildfire hazards on-site. The proposed project would not include associated infrastructure that may exacerbate fire risk. Additionally, the proposed project would be required to comply with all applicable state and local fire codes,

including compliance with the California Fire Code as adopted by the City of San Marcos and SMFD, which require a design that affords fire and emergency responders suitable fire access roads dimensions and surfaces (Chapter 5, Section 503.1 through 503.4 of the California Fire Code), an adequate number of emergency rated entrances to the community (Appendix D, Section D106 of the California Fire Code), and entryway gate access for first responders (Chapter 5 of the California Fire Code, Section 503.6). Furthermore, as determined in the FPP prepared for the proposed project (Appendix N to this EIR), SMFD's existing Stations 1 and 2 would adequately serve the project site while maintaining SMFD's response goals.

Additionally, project construction would also include enhanced ignition resistant features such as a 1-hour fire-resistive walls, Class-A fire-rated roofs and associated assembly, automatic interior fire sprinkler systems, appropriate fire flows, adequate water capacity and supporting infrastructure, and fuel modification areas to further reduce the potential for the risk of wildfire hazards.

For the reasons stated above and considering the project site is located in an urbanized area surrounded on all sides by existing development, implementation of the proposed project would not expose people or structures to risk of loss, injury, or death involving wildfires, and impacts would be *less than significant*.

Please refer to Section 3.18, Wildfire, for a detailed analysis of project impacts related to wildfire risk.

### 3.8.5 Mitigation Measures

No impacts to hazards and hazardous materials were identified; thus, no mitigation measures are required.

### 3.8.6 Conclusion

As discussed in Section 3.8.4, Project Impact Analysis, the project site is currently undeveloped and is not listed on any hazardous materials sites or databases. Construction and operation of the proposed project is not expected to result in the transport, release, or disposal of any significant hazardous materials. Development of the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. Lastly, the proposed residential development on site would be constructed in accordance with all applicable fire codes and regulations. As such, project-level and cumulative-level impacts related to hazards and hazardous materials would be *less than significant*.



## 3.9 Hydrology and Water Quality

This section describes the existing hydrology and water quality of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

The analysis in this section relies on the following reports prepared for the proposed project:

- Preliminary Drainage Study, prepared by Lundstorm Engineering and Surveying, Inc., January 24, 2023 (included as Appendix E to this environmental impact report [EIR])
- Revised Preliminary Geotechnical Evaluation, prepared by GEOTEK Inc., November 30, 2022 (included as Appendix F to this EIR)
- Storm Water Quality Management Plan (SWQMP), prepared by Lundstrom Engineering and Surveying, Inc., August 15, 2022 (revised February 16, 2023) (included as Appendix G to this EIR)

Table 3.9-1 summarizes the project- and cumulative-level hydrology and water quality impact analysis by threshold.

**Table 3.9-1. Hydrology and Water Quality Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 5: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. | Less than Significant | Less than Significant   | Less than Significant      |

**Table 3.9-1. Hydrology and Water Quality Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 6: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows | Less than Significant | Less than Significant   | Less than Significant      |
| No. 7: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 8: Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?  | Less than Significant | Less than Significant   | Less than Significant      |

### 3.9.1 Existing Conditions

This section details the existing hydrology, water quality and groundwater conditions on the project site.

#### Hydrologic Setting

The project site is located at the northern corner of Linda Vista Drive and South Las Posas Road in the City of San Marcos, San Diego County, California. The site is bounded to the southwest by Linda Vista Drive, to the southeast by South Las Posas Road, to the northeast by La Mirada Drive and to the northwest by South Pacific Street. The project site is primarily flat, with site surface conditions generally consisting of rolling unimproved earthen terrain, with low-growing vegetation. Total change in elevation across the site is approximately 28 feet, with surface drainage directed toward the southeastern corner of the property toward South Las Posas Road and Linda Vista Drive. Elevations on site range from approximately 527 feet above mean sea level in the southeast portion of the project area to 551 feet in the northwest corner of the project site.

Stormwater arrives on site via natural rainfall only. Rainfall run-off from the site typically only occurs during a significant wet weather event. Stormwater that does accumulate on site generally drains in a south-easterly direction to an existing storm drain inlet and is then conveyed easterly across South Las Posas Road through a culvert and eventually downstream to the San Marcos Creek. More specifically, this drainage is collected in a corrugated metal pipe riser that drains to an 11-foot by 7-foot reinforced concrete box in South Las Posas Road. The remainder of the project site surface drains to the surrounding streets. All surrounding streets drain via gutter flow to the same corner (South Las Posas Road and Linda Vista Drive) where runoff is collected by a pair of curb inlets, which drain into the same 11-foot by 7-foot reinforced concrete box in South Las Posas Road. There is no off-site run-on to the property (Appendix E). The project site is located in Zone X of the Flood Insurance Rate Map Panel 06073C0789H. Zone X is designated to be areas determined to be outside the 500-year floodplain (Appendix E).

#### Water Quality

The proposed project is located within the jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB). The San Diego Region is divided into eleven hydrologic units. The project site is located in the Richland Hydrologic Subarea (HSA) 904.52, within the San Marcos Hydrologic Area (HA 904.52) that is part of the Carlsbad Watershed (Hydrologic Unit 904.00) (RWQCB 2021). The Carlsbad Hydrologic Unit (904.00) is a triangular area

covering approximately 210 square miles (SWRCB 2002). This hydrologic unit is bordered by San Luis Rey Hydrologic Unit to the north and San Dieguito Hydrologic Unit to the east and south. The Carlsbad Hydrologic Unit includes one small coastal lagoon (Loma Alta Slough) and four major coastal lagoons, including Buena Vista, Agua Hedionda, Batiquitos, and San Elijo (SWRCB 2002). The Carlsbad Hydrologic Unit is separated into four primary subwatersheds based on topographical drainage areas to creek systems, including 904.1 San Luis Rey River, 904.3 Agua Hedionda Creek, 904.5 San Marcos Creek, and 904.6 Escondido Creek. Each of these subwatershed areas is further refined by eight creek system branches by hydrographic subareas (City of San Marcos 2012a).

The protection of watersheds and water quality is a prominent concern for the City since all of the major creeks and their tributaries (San Marcos, Agua Hedionda, and Escondido) are listed by the State Water Resources Control Board as impaired for a variety of pollutants that ultimately affect the water quality of surface and groundwater supplies and biological resources. The City has partnered with other jurisdictions in the Carlsbad Watershed to implement Water Quality Improvement Plans in coordination with the San Diego RWQCB Region 9 for nutrients and bacteria to protect the watersheds and address the water body impairments. The City is the lead agency for the nutrient management plan in the Upper San Marcos Creek Watershed (City of San Marcos 2012a).

The San Diego RWQCB has adopted a Basin Plan that outlines beneficial uses and water quality objectives that are protective of the beneficial uses for each of the HSA areas in the General Plan Area. In addition, the San Diego RWQCB has adopted Order R9-2013-0001 amended by R9-2015-0001, the San Diego Region Municipal Separate Storm Sewer System (MS4) Permit, the Bacteria I Order total maximum daily loads (TMDL) and is providing oversight with a stakeholder-driven nutrient TMDL for the Upper San Marcos Creek (HSA 904.52 and 904.53) to address the impairments in San Marcos Creek and Lake San Marcos. The City is the lead agency for the Upper San Marcos Creek nutrient TMDL. The City of San Marcos regionally and locally implements the requirements of the MS4 Permit. This includes best management practice (BMP) inspection programs for businesses, municipal facilities, and treatment control facilities; preventative programs such as street sweeping and storm drain facility cleaning; monitoring water quality within the City of San Marcos; and integrating site design, source control, low impact development (LID), treatment controls, and hydromodification design for City projects and private development and redevelopment to reduce polluted stormwater from entering the City's MS4 (City of San Marcos 2012a).

Due to the existing terrain and undeveloped condition of the project site and relatively flat terrain, the project site in current conditions does not contribute to water quality issues in the City.

## Groundwater

As described in the Revised Preliminary Geotechnical Evaluation prepared for the project (Appendix F), static groundwater was not encountered during drilling operations. Excavations B-5 and B-6 appeared to have encountered perched water at a depth of approximately 19 and 15 feet (respectively) and cuttings in B-4 at a depth of 17 feet suggest perched groundwater. Based on the anticipated depth of removals, groundwater is not anticipated to be a factor during development of the project site. Localized perched groundwater may be present but is also not anticipated to be a factor in site development, with the exception that seasonal water levels are likely to impact stormwater management.

The San Diego RWQCB Basin Plan identifies beneficial uses for groundwater in the four primary subwatersheds as municipal, agricultural, and industrial uses (RWQCB 2021). The City of San Marcos is located in the Department of Water Resources (DWR) South Coast Hydrologic Region. DWR Bulletin 118 identifies the San Marcos Area as Basin 9-32. The DWR San Marcos Area is 2,129 acres. This groundwater basin is located entirely within San Marcos Creek HSA 904.52, which is designated as impaired and has a hydrologic connection to Lake San Marcos. Other minor groundwater basins

and wells are located throughout the San Marcos General Plan area outside of Basin 9-32; however, the DWR Basin 9-32 is the only groundwater basin formally designated in the General Plan Area.

Protection of the groundwater beneficial uses identified in the Basin Plan through the implementation of watershed protection programs in the City is critical to protecting the City's ability to use these resources.

Due to the undeveloped condition of the project site, the project site in current conditions does not contribute to groundwater contamination, nor is groundwater used in current conditions.

## 3.9.2 Regulatory Setting

This section details the applicable federal, state, and local regulations pertaining to hydrology and water quality.

### Federal

#### Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The standard for flood protection is established by FEMA, with the minimum level of flood protection for new development determined to be the 1% annual exceedance probability (i.e., the 100-year flood event). The project site is not located within a 100-year flood zone.

#### Federal Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1977.

Under the CWA, the U.S. Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater discharge standards for industry. EPA has also set water quality standards for contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters unless a permit was obtained.

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point-source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of loading that the water body can receive and still be in compliance with water quality objectives. The TMDL can also act as a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The TMDL prepared by the state must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings and a margin of safety. The TMDL must also include an analysis that shows the linkage between loading reductions and the attainment of water quality objectives. EPA must either approve a TMDL prepared by the state or, if it disapproves the state's TMDL, issue its own. National Pollutant Discharge Elimination System (NPDES) permit limits for listed pollutants must be

consistent with the waste load allocation prescribed in the TMDL. After implementation of the TMDL, it is anticipated that the problems that led to placement of a given pollutant on the Section 303(d) list would be remediated.

#### National Pollutant Discharge Elimination System

The NPDES permit system was established in the federal CWA to regulate municipal and industrial discharges to surface waters of the U.S. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that the federal EPA must consider in setting effluent limits for priority pollutants.

Nonpoint sources are diffuse and originate from a wide area rather than from a definable point. Nonpoint pollution often enters receiving waters in the form of surface runoff but is not conveyed by way of pipelines or discrete conveyances. As defined in the federal regulations, such nonpoint sources are generally exempt from federal NPDES permit program requirements. However, three types of nonpoint source discharges are controlled by the NPDES program: nonpoint source discharge caused by general construction activities, the general quality of stormwater in municipal stormwater systems, and discharges associated with industrial operations. The 1987 amendments to the CWA directed the federal EPA to implement the stormwater program in two phases. Phase I addressed discharges from large (population 250,000 or above) and medium (population 100,000 to 250,000) municipalities and certain industrial activities. Phase II addresses all other discharges defined by EPA that are not included in Phase I.

In accordance with NPDES regulations, in order to minimize the potential effects of construction runoff on receiving water quality, the State requires that any construction activity that disturbs 1 acre or more must obtain a General Construction Activity Stormwater Permit. Permit applicants are required to prepare a stormwater pollution prevention plan (SWPPP) and implement BMPs, such as erosion and sediment control and non-stormwater management measures, to reduce construction effects on receiving water quality.

Examples of typical BMPs implemented in SWPPPs include using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drains or surface water.

The proposed project would be subject to permit requirements and would develop and implement a project-specific SWPPP to minimize construction activity impacts.

#### State

##### California Water Code Division 7 (Porter-Cologne Act)

The California Water Code contains provisions regulating water and its use. Division 7 establishes a program to protect water quality and beneficial uses of the state water resources including groundwater and surface water. The State Water Resources Control Board (SWRCB) and RWQCB administer the program and are responsible for control and water quality. They establish waste discharge requirements, oversee water quality control planning and monitoring, enforce discharge permits, and establish ground and surface water quality objectives.

## State Water Resources Control Board

In California, the SWRCB has broad authority over water-quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the Federal government under the CWA. Other State agencies with jurisdiction over water quality regulation in California include California Department of Public Health (for drinking water regulations), the California Department of Pesticide Regulation, the California Department of Fish and Wildlife, and the Office of Environmental Health and Hazard Assessment.

### Construction General Permit

Owners and operators of construction activities who disturb 1 or more acres of soil, or less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the SWRCB's Order 2009-0009-DWQ (as amended by 2010-0014-DWQ and 2012-0006-DWQ), the Construction General Permit. Construction and demolition activities subject to this permit include clearing, grading, grubbing, and excavation or any other activity that results in a land disturbance equal to or greater than 1 acre. Applicants are required to submit a Notice of Intent to the SWRCB and prepare a SWPPP. The SWPPP must identify BMPs that are to be implemented to reduce construction impacts on receiving water quality based on potential pollutants. The SWPPP also must include descriptions of the BMPs to reduce pollutants in stormwater discharges after construction phases are completed at a site (post-construction BMPs).

### Regional Water Quality Control Board

The project site is situated within the jurisdiction of the San Diego RWQCB (Region 9). The San Diego RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction.

The project site is located in the Richland Hydrologic Subarea within the San Marcos Hydrologic Area, which is part of the Carlsbad Watershed. The Water Quality Control Plan for the San Diego Basin (Basin Plan) was prepared by the RWQCB in compliance with the federal CWA and the Porter-Cologne Act and establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water bodies in the area. Because the City of San Marcos is located within the San Diego RWQCB's jurisdiction, all discharges to surface water or groundwater are subject to the Basin Plan requirements.

In May 2013, the San Diego RWQCB adopted Order R9-2013-0001, the new municipal NPDES permit for 39 municipal, county government, and special district entities located in southern Orange County, southwestern Riverside County, and San Diego County who own and operate large municipal separate storm sewer systems (MS4s) that discharge stormwater runoff and non-stormwater runoff to surface waters throughout the San Diego Region. This permit has requirements for development projects to minimize or eliminate the impacts of such development on water quality. The proposed project is subject to the requirements of the municipal permit as it is implemented via the Carlsbad Watershed Urban Runoff Management Program. The specific requirements include the selection of appropriate BMPs to avoid, prevent, or reduce the pollutant loads entering the storm drain system and receiving waters. The permit was amended in February 2015 by Order R9-2015-0001 and in November 2015 by Order R9-2015-0100.

Provision D.1.a of Order R9-2013-0001 requires the San Diego Stormwater Co-permittees to continue water monitoring programs established within previous Orders and pursuant to the approved Hydromodification Management Plan (January 2011). The City of San Marcos is one of the co-permittees.

To comply with Order R9-2013-0001, as amended, the February 2016 Model BMP Design Manual – San Diego Region (BMP Design Manual) was developed to provide County-specific project design and post-construction stormwater requirements for development projects and replace the prior San Diego Regional Model Standard Urban Stormwater Mitigation Plan (County of San Diego 2020). The BMP Design Manual is used to ensure compliance with the MS4 permit for structural BMPs subject to pollutant control and hydromodification requirements. Additionally, it recommends LID features such as site design and source control BMPs for the proposed development project. Structural BMPs such as infiltration, bioretention, or biofiltration BMPs is a subset of BMPs that detains, retains, filters, removes, or prevents the release of pollutants to surface waters from development projects in perpetuity, after construction of a project is completed. Hydromodification requirements utilize structural BMPs to prevent the change in the natural watershed hydrologic processes and runoff characteristics caused by urbanization or other land use changes that result in increased stream flows and sediment transport. LID is a stormwater management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrology controls to more closely reflect pre-development hydrologic functions.

#### Local

##### Carlsbad Watershed Management Area Water Quality Improvement Plan

On May 8, 2013, the San Diego RWQCB adopted Order R9-2013- 0001, a NPDES MS4 Permit, regulating discharges from Phase I MS4s in the San Diego Region (SWRCB 2015). Provision B of the Permit requires Responsible Agencies, in each of the region’s Watershed Management Areas to develop Water Quality Improvement Plans (WQIPs) that identify water quality conditions and strategies to improve water quality within the watershed. Through the WQIP approach, Highest Priority Water Quality Conditions within the Watershed Management Area are identified, and strategies are implemented through the Responsible Agencies Jurisdictional Runoff Management Programs to progressively improve water quality. The plans contain an adaptive planning and management process and a public participation component. The Carlsbad Management Area Water WQIP was prepared in June 2016 for the Carlsbad Watershed Management Area Responsible Agencies, which include the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista, and the County of San Diego (Carlsbad Watershed Management Area Responsible Agencies 2016).

##### San Marcos Stormwater Standards

The City has adopted the use of the 2016 Model BMP Design Manual for the San Diego Region as the City’s Stormwater Standards Manual, and the proposed project must comply with the standards and regulations contained therein.

## City of San Marcos General Plan

### Conservation and Open Space Element

The following are applicable goals and policies from the City of San Marcos General Plan, Conservation and Open Space Element, related to hydrology and water quality (City of San Marcos 2012a):

Goal COS-6: Protect and restore appropriate surface water and groundwater beneficial uses through prioritizing the improvement of locally impaired water bodies within the City of San Marcos sub watersheds.

Policy COS-6.2: Promote watershed stewardship as the community norm.

Goal COS-7: Achieve sustainable watershed protection for surface and ground water quality that balances social, economical, and environmental needs.

Policy COS-8.4: Require new development and redevelopment to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, BMPs, LID, hydromodification strategies consistent with the Current San Diego RWQCB Municipal Stormwater NPDES Permit, and all future municipal stormwater permits.

### Safety Element

The following goal and policy in the City of San Marcos General Plan, Safety Element, are applicable to flooding and flood control (City of San Marcos 2012b):

Goal S-2: Minimize the risk to people, property, and the environment due to flooding hazards.

Policy S-2.2: Require existing private development to take responsibility for maintenance and repair of structures to resist flood damage.

### Land Use and Community Design Element

The following goal and policies in the City of San Marcos General Plan, Land Use and Community Design Element, are applicable to stormwater drainage facilities (City of San Marcos 2012c):

Goal LU-15: Flood control and storm water drainage facilities: ensure adequate flood control and storm water drainage is provided by the community.

Policy LU-15.1: Implement activities, practices, procedures, or facilities that avoid, prevent, or reduce pollution of the San Marcos Storm Water Conveyance System and receiving waters.

Policy LU-15.2: Improve inadequate or undersized drainage/flood control facilities to solve both small neighborhood and large regional drainage and flood control problems.

Policy LU-15.3: Avoid, to the extent possible, development in floodplain and flood prone areas.

Policy LU-15.4: Retain drainage courses in their natural condition, to the extent possible. Consider smaller-scale drainage improvements to protect the environment and avoid disturbing natural drainage courses; consider detention areas and raised building pads.



The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10, the project is consistent with the applicable goals and policies pertaining to hydrology and water quality.

### City of San Marcos Ordinances

The Stormwater Management and Discharge Control Ordinance (San Marcos Municipal Code Chapter 14.15) requires that all new development and redevelopment activities comply with stormwater pollution prevention requirements. These stormwater pollution prevention requirements, which are described in detail in Section 14.15.050 of the Municipal Code "Reduction of Pollutants in Storm Water," include construction, development and redevelopment, and residential BMPs.

## 3.9.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to hydrology and water quality are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the project would:

- Threshold No. 1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Threshold No. 2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Threshold No. 3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site.
- Threshold No. 4: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.
- Threshold No. 5: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Threshold No. 6: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.
- Threshold No. 7: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Threshold No. 8: Conflict with or obstruct implementation of a water quality control or sustainable groundwater management plan.

### 3.9.4 Project Impact Analysis

This section considers the impacts to hydrology and water quality that would result from implementation of the proposed project.

***Threshold No. 1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

Construction activities associated with the proposed project could result in potential impacts to water quality. In addition to sediment erosion from ground-disturbing activities on the project site, fuels, oils, lubricants, and other hazardous substances used during construction could be released and potentially impact water quality.

The proposed project would be required to comply with the NPDES SWRCB Construction General Permit Order No. 2009-0009-DWQ for stormwater discharges and general construction activities, and would incorporate standard temporary construction BMPs, such as regular cleaning or sweeping of construction areas and impervious areas, and various stormwater BMPs, such as fiber rolls and filtration media screens. In compliance with the Construction General Permit, a SWPPP will be prepared for the project that would specify BMPs that would be implemented during construction to minimize impacts to water quality.

Additionally, the proposed project would be required to comply with the NPDES MS4 permit for stormwater discharges as a post-construction requirement. The project implementation of permanent biofiltration, source control, and site design BMPs would effectively treat post-construction stormwater runoff prior to discharge from the site in compliance with the requirements of the BMP Design Manual and BMPs outlined in the SWQMP.

The proposed biofiltration features on site would be subject to regular inspection and maintenance. The property owner is required, pursuant to the City's Municipal Code Section 14.15 and the BMP Design Manual, to enter into a Stormwater Quality Facilities Maintenance agreement for the installation and maintenance of permanent BMPs prior to issuance of a grading permit.

As described in Section 3.8, Hazards and Hazardous Materials, of this EIR, proposed residential uses are not typically characteristic of generating, releasing, or using large amounts of hazardous materials. Hazardous materials anticipated would be for transport, use, or disposal of routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products, typical of residential land uses. Operation of the project is not expected to include such uses that would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Furthermore, uses associated with construction and operation of the project would likely be less of a detriment to water quality than those uses associated with industrial uses, which is the current designated land use for the project site.

The implementation of permanent biofiltration, source control, and site design BMPs would effectively treat runoff prior to discharge from the site in compliance with the requirements of the BMP Design Manual and BMPs outlined in the SWQMP. Additionally, implementation of a SWPPP for temporary construction BMPs during grading and construction operations would effectively treat runoff during construction prior to discharge from the site in compliance with the State Construction General Permit. Therefore, with implementation of all required BMPs as conditions of project approval, the project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality. Impacts would be less than significant.

***Threshold No. 2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

As discussed above, localized perched groundwater may be present on the project site; however, no static groundwater was encountered that would be indicative of an aquifer occurring below the site. All stormwater flows on site would be conveyed to biofiltration basins and underground storage systems throughout the project site, where stormwater would be treated prior to being discharged. Stormwater would be adequately treated by the biofiltration BMPs prior to being discharged to the City's MS4. Preservation of natural/undisturbed areas in the project will allow some of the runoff to infiltrate into the native soils and eventually reach groundwater. As the project would use biofiltration and BMPs that would effectively treat stormwater runoff, it is not expected that project implementation would have a potentially significant adverse impact on groundwater quality or cause or contribute to an exceedance of applicable groundwater receiving water quality objectives or degradation of beneficial uses.

Further, as discussed in Section 3.17, Utilities and Service Systems, the project would receive water from the Vallecitos Water District, who in turn, receives its water from the Metropolitan Water District of Southern California. The Metropolitan Water District obtains water from local sources, as well as the Colorado River, via the Colorado River Aqueduct, and the Sacramento-San Joaquin Delta, via the State Water Project (MWD 2016). The project does not propose the use of groundwater for construction or operation and would not interfere with infiltration and groundwater recharge. The implementation of the proposed project would not decrease groundwater basins through increasing water demand on site or impede sustainable groundwater management of any groundwater basin. Therefore, impacts would be less than significant.

***Threshold No. 3. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site?***

There are no existing streams or rivers on site that would be substantially altered as a result of project implementation. However, project implementation would introduce new impervious areas and include on-site drainage systems that could alter the existing drainage pattern on the project site. The project site is currently a vacant lot and has no existing impervious areas.

As discussed above, storm water arrives on site via natural rainfall only. Rainfall runoff from the site typically only occurs during a significant storm event. Storm water that does accumulate on site generally drains in a southeasterly direction toward the northwest corner of Linda Vista Drive and South Las Posas Road. This drainage is collected in a corrugated metal pipe riser that drains to an 11-foot by 7-foot reinforced concrete box in South Las Posas Road, and eventually flows downstream and discharges to San Marcos Creek. The remainder of the site surface drains to the surrounding streets. All surrounding streets drain via gutter flow to the same corner (South Las Posas Road and Linda Vista Drive) where runoff is collected by a pair of curb inlets that drain into the same 11-foot by 7-foot reinforced concrete box in South Las Posas Road. There is no off-site run-on to the project site. Per the Municipal Separate Storm Sewer System Permit requirements, MS4 water requirements, stormwater flows on site would be conveyed to biofiltration basins and underground storage systems throughout the project site, where storm water would be treated prior to being discharged. The project has considered stormwater flows and designed the grading plan to direct all surface runoff to catch basins in private drives and drive aisles. Once captured, stormwater would be conveyed through a series of pipes, storm water quality facilities, and conveyed to the existing box culvert in South Las Posas Road. Treated runoff would follow the same drainage pattern as currently exists. Storm drainage components would properly handle runoff to meet regulatory requirements.

As described in response to Threshold No. 1, the proposed project would be required to implement BMPs during construction and for post-construction and incorporate on-site storm drain systems, biofiltration BMPs, and detention vaults into development design. With implementation of the proposed biofiltration basins and detention vaults, the project would not substantially alter the existing drainage patterns on the site or area, including through the alteration of the existing drainage course, and would not result in substantial erosion or siltation on or off site; and would not exceed the capacity of downstream storm drain facilities (Appendix E). Additionally, project-related runoff would be adequately treated prior to discharge into planned drainage systems via biofiltration BMPs and detention vaults such that the proposed project would not provide substantial additional sources of polluted runoff.

The proposed project would be required to demonstrate adequate drainage on site, and connections to off-site existing facilities, in project-specific plans to be reviewed and approved by the City. Further, implementation of construction BMPs and a SWPPP would ensure construction of the project would not result in substantial erosion or siltation on or off site. The Preliminary Drainage Study (Appendix E) in accordance with the SWQMP recommends storm drain system and water quality facilities, such as biofiltration BMPs and detention vaults, for the project site. Recommendations outlined in the Preliminary Drainage Study would be conditions of approval for the proposed project. These components would properly handle runoff to meet regulatory requirements and would not increase the flow rates or velocity of surface flows to the detriment of downstream landowners and/or facilities (Appendix E). Therefore, it is determined that impacts to existing drainage as it relates to erosion or siltation, would be less than significant.

***Threshold No. 4. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?***

Please refer to response to Threshold No. 3. Implementation of the proposed project would increase the area of impervious surface on the project site, which could increase runoff flow rates and volumes. However, the proposed project would include implementation of temporary construction BMPs during construction and permanent BMPs proposed as an on-site storm drain system, including biofiltration BMPs and detention vault for a post-development condition as recommended by the Preliminary Drainage Study (Appendix E) in accordance with the SWQMP. These BMPs would be sized to treat, store, and release stormwater runoff such that it does not substantially alter the existing drainage patterns and will not exceed the capacity of the receiving storm drain system. Implementation of BMPs would be a condition of approval for the proposed project to ensure facilities would be designed to collect and convey runoff from 100-year storm events, as well as handle runoff and comply with applicable regulatory requirements outlined in Section 3.9.2. This would ensure that the runoff quantities generated by the project do not significantly alter the existing drainage pattern of the site resulting in flooding. Impacts would be less than significant.

***Threshold No. 5. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would 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?***

Please refer to response to Threshold No. 3. Implementation of the proposed project would increase impervious areas on site. However, adequate on-site drainage and off-site storm drain connection would be incorporated into the project site design to manage stormwater on and off site as a result of project development. The Preliminary Drainage Study (Appendix E) recommends a storm drain system, such as biofiltration BMPs and detention vaults, for the project. These components would convey runoff to meet regulatory requirements and to ensure that post-

development runoff would occur at rates that are equal to, or less than, pre-development conditions. Further, preparation and implementation of the SWQMP and implementation of project specific permanent BMPs would ensure the project would not result in substantial additional sources of polluted runoff. For these reasons, it is determined that implementation of the proposed project would not alter the course of a stream or river, and development of the project is not expected to exceed the capacity of existing or planned stormwater drainage systems, nor result in substantial sources of polluted runoff. Therefore, impacts related to stormwater drainage would be less than significant.

***Threshold No. 6: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?***

Please refer to responses to Thresholds No. 3, No. 4 and No. 5, above. The project would increase the impervious surface area on site in comparison to existing conditions, which could increase runoff flow rates or volumes. However, the project site and the immediate area are relatively flat and do not currently result in flooding during storms. A storm drain system recommended by the Preliminary Drainage Study (Appendix E) would properly convey runoff to meet regulatory requirements and to ensure that post-development run-off quantifies flow rates are equal to or less than pre-development conditions. On-site drainage facilities and off-site drainage connections would be designed to collect and convey runoff from 100-year storm events. Additionally, the project site is located in Zone X, which is designated as being outside of the 500-year floodplain, and thereby, not subject to substantial flooding. Implementation of the proposed project is not expected to impede or redirect flood flows and impacts to stormwater drainage would be less than significant.

***Threshold No. 7: In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?***

The project site is approximately 8 miles inland from the Pacific Ocean and would not be subject to inundation by tsunami. The project site is not located within a 100-year flood hazard area, and is not located in flood hazard, tsunami, or seiche zones. Given that the project site is not located near a large standing body of water, inundation by seiche (or standing wave) is considered negligible. The project site is generally flat with no steep slopes and does not contain slopes subject to mudflows; therefore, potential impacts related to release of pollutants due to inundation are determined to be less than significant.

***Threshold No. 8: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

The Carlsbad Management Area Water WQIP was prepared in June 2016 for the Carlsbad Watershed Management Area Responsible Agencies, which include the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista, and the County of San Diego. The purpose of the Carlsbad WQIP is to guide the Responsible Agencies' Jurisdictional Runoff Management Plans towards achieving improved water quality in MS4 discharges (or stormwater discharges) and receiving water bodies. Responsible Agencies' Jurisdictional Runoff Management Programs contain the strategies, standards, and protocols by which each Responsible Agency will implement their individual program in response to the priorities and goals established in the WQIP (Carlsbad Watershed Management Area Responsible Agencies 2016).

The proposed project is located within the San Marcos Hydrologic Area, which is the second largest within the Carlsbad Watershed Management Area. The Carlsbad Management Area Water WQIP outlines areas of priority water quality conditions and highest priority water quality conditions. As discussed in Section 3.3, Biological

Resources, no potential wetland or non-wetland water features are present within the biological study area. As such, the proposed project would not conflict with or obstruct implementation of the Carlsbad Management Area Water WQIP or any other water quality plan. Further, the site is not located within a sustainable groundwater management plan area. Therefore, impacts are determined to be less than significant.

### 3.9.5 Mitigation Measures

Based upon the analysis presented in Section 3.9.4, impacts are determined to be less than significant, and no mitigation measures are required.

### 3.9.6 Conclusion

The proposed project would increase the amount of impervious surface area in comparison to existing conditions. However, as described above, a storm drain system incorporating biofiltration BMPs and detention vaults recommended by the Preliminary Drainage Study (Appendix E) in accordance with the project SWQMP would properly handle runoff to meet regulatory requirements and to ensure that post-development runoff would occur at rates that are equal to, or less than, pre-development conditions. Appropriate design of on- and off-site drainage facilities, implementation of a SWPPP, SWQMP and BMPs, and implementation of all recommendations from the Preliminary Drainage Study and development-specific drainage plans would ensure the project would not substantially alter the drainage patterns on or off site or result in substantial polluted runoff. Therefore, impacts to hydrology and water quality as a result of the proposed project are determined to be less than significant.

## 3.10 Land Use and Planning

This section analyzes the potential for the proposed Pacific Specific Plan Project (proposed project) to have impacts related to land use and planning. This section considers consistency with applicable land use plans and habitat conservation plans.

Table 3.10-1 summarizes the proposed project- and cumulative-level land use impact analysis for the proposed project.

**Table 3.10-1. Land Use Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 1: Physically divide an established community.   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. | Less than Significant | Less than Significant   | Less than Significant      |

### 3.10.1 Existing Conditions

This section describes the existing planning context for the project site, including the City of San Marcos General Plan and Zoning designations that currently apply to the site.

#### Project Site

As shown in Figures 2-1 and 2-2 in Chapter 2 (Project Description, Location, and Environmental Setting) of this environmental impact report (EIR), the proposed project is located in north San Diego County within the western portion of the City of San Marcos (City). The undeveloped project site is an approximately 33.2-acre infill site, located at the northwest corner of South Las Posas Road and Linda Vista Drive. The project site is located in an urban area of the City and considered an infill site, located in the City’s Business/Industrial District (City of San Marcos 2012a). The project site is dominated by invasive shrubs and grasses, and although undeveloped, reflects a history of disturbance. Vegetation is disturbed by an abundance of invasive and weedy plant species, and unpaved roads that cross the project site.

#### Existing General Plan Designation

The City of San Marcos General Plan designates the approximately 33.2-acre project site as Industrial (I) (City of San Marcos 2012a). The Industrial (I) designation generally allows for manufacturing, assembly, processing, and distribution of goods; warehousing and wholesale activities associated with industrial operations; small-scale support retail, service commercial, and office uses; and outdoor storage as part of industrial operations. Development allowed under this land use designation must be consistent with those uses outlined in the City’s municipal code and zoning ordinance, as well as the Industrial land use designation of the General Plan. Please refer to Figure 2-3a, General Plan Land Use, in Chapter 2 of this EIR.

## Existing Zoning Designation

Existing zoning of the project site is Industrial (I). The purpose of the Industrial land use designation is to “provide a setting for the full range of indoor manufacturing, distribution, warehousing, processing, and general service uses that are adequately served by vehicular arterials and utilities. Industries that use hazardous materials, require heavy equipment, and/or that generate sustained noise levels are deemed appropriate for this Zone.” The I Zone is intended to implement and be consistent with the Industrial land use designation of the General Plan (City of San Marcos 2022). Please refer to Figure 2-4a, Existing Zoning, in Chapter 2 of this EIR.

## Surrounding Land Uses

The project site is immediately bordered by South Las Posas Road to the east, Linda Vista Drive to the south, La Mirada Road to the north and Pacific Street to the west. Beyond these adjacent roads, the project site is surrounded by industrial uses to the north, south, and west, and commercial uses to the east. The Grand Plaza shopping center is located directly across South Las Posas Road. The 24-acre Bradley Park is located across from the site’s southwestern corner. Residential uses are located to the south and west of Bradley Park. Surrounding land uses outside of the immediately adjacent industrial and commercial uses include designated parks, single- and multifamily- residential, and schools/educational facilities. The closest freeway is State Route 78 located approximately 0.44 miles north of the project site.

## 3.10.2 Regulatory Setting

This section provides an overview of the regulatory setting related to planning and land use that applies to the project, including state, regional, and local regulation and planning documents.

### State

#### California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law, Government Code Sections 65000 et seq. Under state planning law, each city and county is required to adopt a General Plan “for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning” (Section 65300). The General Plan expresses the community’s development goals and embodies public policy relative to the distribution of future land uses, both public and private. A General Plan consists of several elements, including land use, circulation, housing, conservation, open space, noise, and safety; other elements may be included at the discretion of the jurisdiction that relate to the physical development of the county or city.

### Regional/Local

#### San Diego Association of Governments San Diego Forward: The Regional Plan

The Regional Comprehensive Plan, adopted in 2004 by the San Diego Association of Governments (SANDAG), lays out key principles for managing the region’s growth while preserving natural resources and limiting urban sprawl. The plan covers eight policy areas, including urban form, transportation, housing, healthy environment, economic prosperity, public facilities, our borders, and social equity.



In 2011, SANDAG approved the 2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). This RTP/SCS provides a blueprint to improve mobility, preserve open space, and create communities, all with transportation choices to reduce greenhouse gas emissions and meet specific targets set by the California Air Resources Board as required by the 2008 Sustainable Communities Act.

The SANDAG target, as set by California Air Resources Board, is to reduce the region's per capita emissions of greenhouse gas emissions from cars and light-duty trucks by 7% by 2020, compared with a 2005 baseline. By 2035, the target is a 13% per capita reduction. To achieve the 2020 and 2035 targets, SANDAG and other metropolitan planning organizations are required to develop an SCS as an element of its RTP. The SANDAG SCS integrates land use and transportation plans to achieve reductions in greenhouse gas emissions and meet the California Air Resources Board-required targets.

On October 9, 2015, the SANDAG Board of Directors adopted San Diego Forward: The Regional Plan (Regional Plan). The Regional Plan combines the two previously described existing regional planning documents: the Regional Comprehensive Plan and the RTP/SCS. The Regional Plan updates growth forecasts and is based on the most recent planning assumptions considering currently adopted land use plans, including the City's General Plan. SANDAG's Regional Plan will be updated every 4 years to account for changes from ongoing land use planning decisions by local agencies. The most recent regional plan is the 2019 San Diego Forward Federal Transportation Plan, which builds off the 2015 plan (SANDAG 2019). SANDAG is in the process of finalizing its 2021 Regional Plan, which will provide the long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources.

#### SANDAG Multiple Habitat Conservation Program

The Multiple Habitat Conservation Program (MHCP) is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County (SANDAG 2003). The MHCP encompasses the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46%) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species.

The City of San Marcos began preparing a draft of the City Subarea Plan of the MHCP in May 2001, and although the Subarea Plan has not yet been approved by the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, the plan is a component of the adopted MHCP and is currently being used as a guide for open space design and preservation within the City (SANDAG 2001). The intent of the City's Draft Subarea Plan is to identify a citywide preserve system that meets local and regional biological goals while minimizing fiscal and economic impacts to the City and adverse impacts on private property owners. To help achieve this goal, certain areas, known as Focused Planning Areas, have been designated with parcel-level preserve goals that would contribute to achieving local and regional conservation goals while minimizing adverse effects on property rights and property values. The project site is located within the northern Focused Planning Area within the MHCP planning area.

#### San Diego County Regional Airport Authority Land Use Compatibility Plan

The nearest public airport is the McClellan-Palomar Airport, which is located approximately 5 miles west of the project site. The McClellan-Palomar Airport Land Use Compatibility Plan contains policies to promote land use compatibility between the McClellan-Palomar Airport and adjacent and proximate land uses, to the extent these areas are not already developed with existing uses, and to protect the public health, safety, and welfare. Using

airport-related forecasts and background data approved by the California Department of Transportation, Division of Aeronautics, the plan reflects anticipated growth of the airport over a 20-year horizon. The plan includes land use compatibility criteria and identifies policies applicable to the airport and surrounding land uses. The project site is located within the McClellan-Palomar Airport Influence Review Area 2 (San Diego County Regional Airport Authority 2011). The influence area is regulated by the ALUC, which regulates land uses in the area to be compatible with airport-related noise, safety, airspace protection, and over-flight factors through review of development proposals within the airport influence area. Review Area 2 consists of limits on heights of structures in areas of high terrain. Residential development in Review Area 2 may be subject to annoyances commonly associated with proximity to airports, such as noise, vibration, and overflights. The project site is not located within any of the runway protection zones.

### City of San Marcos General Plan

The San Marcos General Plan consists of the following elements:

- **Land Use and Community Design Element** – Describes the desired future physical composition of the planning area in terms of location, type, and intensity of new development and open space to ensure balanced development that maximizes the long-term livability of the San Marcos community (City of San Marcos 2012a).
- **Mobility Element** – Describes the mobility strategy for the City, which identifies a network of options including streets, sidewalks, trails, and transit, that connects people with the City (City of San Marcos 2012b).
- **Conservation and Open Space Element** – Recognizes the habitat and scenic value of natural and cultural open spaces within the City and lists goals and policies that ensure long-term stewardship of these resources. This element also addresses climate change, water conservation, energy conservation, air quality, watersheds, and water quality (City of San Marcos 2012c).
- **Parks, Recreation and Community Health Element** – Identifies the recreational amenities and community service programs offered within the City and outlines goals for increased access to parks, trails, recreational facilities, and community service programs for all community members (City of San Marcos 2012d).
- **Safety Element** – Establishes policies and programs to protect public health, safety, and welfare of all residents and property. This element identifies and describes plans for response to natural and human-caused safety issues, including geologic, seismic, flood, and fire hazards (City of San Marcos 2012e).
- **Noise Element** – Identifies problematic noise sources within the City and outlines strategies to reduce overall ambient noise levels. This element also includes measures to strategically distribute land uses throughout the City (City of San Marcos 2012f).
- **Housing Element** – Describes the strategy for developing a variety of housing opportunities to accommodate all residents and preserve the quality of existing housing in order to promote safe, decent, and affordable housing within the 2013–2021 planning period (City of San Marcos 2013).

The following goals and policies from the City’s Land Use Element pertain to planning and are applicable to the proposed project:

Goal LU-1: Achieve a balanced distribution and compatible mix of land uses to meet the present and future needs of all residents and the business community.

Policy LU-1.1: Ensure that adjacent land uses complement one another by considering compatibility of activities, development patterns and architectural character elements, and access to various mobility choices.

Policy LU-1.3: Diversify land uses by providing mixed use land uses in strategic locations within the City that place housing adjacent to employment.

Goal LU-2: Promote development standards and land use patterns that encourage long-term environmental sustainability.

Policy LU-2.1: Promote compact development patterns that reduce air pollution and automobile dependence and facilitate walking, bicycling, and transit use.

Policy LU-2.2: Encourage new development to be sited to respond to climatic conditions, such as solar orientation, wind, and shading patterns.

Policy LU-2.3: Require the incorporation of green building practices, technologies, and strategies into development projects per code standards.

Policy LU-2.5: Promote landscaping (e.g., native, drought-tolerant plants) that minimizes demands on water supply.

Policy LU-2.7: Promote the installation of trees to reduce the urban heat island effect and green infrastructure to reduce storm water runoff.

Goal LU-3: Develop land use patterns that are compatible with and support a variety of mobility opportunities and choices.

Policy LU-3.1: Require that new development and redevelopment incorporate connections and reduce barriers between neighborhoods, transit corridors, and activity centers within the City.

Policy LU-3.3: Where feasible, consolidate inadequately sized land into parcels suitable for integrated development with improved pedestrian and vehicular circulation.

Policy LU-3.5: Provide an interconnected open space system that is accessible to the public, including pedestrian and equestrian links, bicycle paths, multi-use trails, recreation areas, and drainage-ways.

Policy LU-3.7: Require new development to prepare traffic demand management programs.

Policy LU-3.8: Require new development and discretionary actions to annex into a Congestion Management Community Facilities District.

Goal LU-5: Promote community design that produces a distinctive, high-quality built environment with forms and character that create memorable places and enrich community life.

Policy LU-5.3: Use public landscaping, banners, and signage along streets, sidewalks, property frontages, and in public spaces to strengthen the City's identity and create a unique sense of place.

Policy LU-5.4: Require building and site design that respects the natural topography and iconic ridgelines that serve as the visual backdrop for San Marcos.

Policy LU-5.5: Encourage development of public spaces and plazas within commercial, mixed-use, and residential projects that include fire and water features that can accommodate civic events and function as community gathering areas.

Policy LU-5.6: Require a specific plan for strategic areas/properties that require high-quality design, orientation and development due to their location or visibility within the community.

Policy LU-5.7: Architecture shall be enhanced with high-end building materials, varied roof lines, and decorative details.

Goal LU-7: Direct and sustain growth and expansion in areas of San Marcos that can support a concentration of a variety of uses and are particularly suitable for multimodal transportation and infrastructure expansion and improvements.

Policy LU-7.2: Coordinate pedestrian, transit and infrastructure upgrades with infill and redevelopment opportunities.

Goal LU-8: Ensure that existing and future development is adequately serviced by infrastructure and public services.

Policy LU-8.1: New development shall pay its fair share of required improvements to public facilities and services.

Policy LU-8.2: Promote development timing that is guided by the adequacy of existing and/or expandable infrastructure, services, and facilities.

Goal LU-14: Wastewater: Ensure an adequate wastewater system for existing and future development.

Policy LU-14.2: Ensure development approval is directly tied to commitments for the construction or improvement of primary water, wastewater, and circulation systems.

Goal LU-17: Utilities and Communications: Encourage provision of power and communication systems that provide reliable, effective and efficient service for San Marcos.

Policy LU-17.2: Require all new development and redevelopment to provide the technology to support multiple telecommunications facilities and providers such as multi-media products, wireless technologies, and satellite communications.

The General Plan includes goals and policies applicable to other areas, such as mobility, safety, noise, and conservation. The proposed project's consistency with applicable General Plan goals and policies is presented in Section 3.10.4, Project Impact Analysis.

### San Marcos Municipal Code and Zoning Ordinance, Title 20

The provisions of Title 20 of the San Marcos Municipal Code are referred to as the Zoning Ordinance. The Zoning Ordinance is based on the official Zoning Map of the City of San Marcos. The purpose of this Zoning Ordinance is to protect and promote the public health, safety, comfort, convenience, and general welfare of the San Marcos

community; to implement the policies of the General Plan; and to provide the physical, environmental, economic, and social advantages that result from the orderly planned use of land resources.

### 3.10.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to land use and planning are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if the project would:

Threshold No. 1: Physically divide an established community.

Threshold No. 2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### 3.10.4 Project Impact Analysis

This section considers the impacts to land use and planning that would result from the proposed project.

***Threshold No. 1: Would the project physically divide an established community?***

The project site is currently undeveloped and surrounded by commercial uses to the east, and industrial uses to the north, west, and south. As described in Chapter 2 of this EIR, the proposed project proposes development of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.09 acres within the approximately 33.2-acre project site. Of the 449 total units, 68 (15%) would be designated as deed-restricted affordable units (alternatively, the project reserves the option to contribute to the affordable housing fund by paying the in-lieu fee). The proposed project would also include a total of 927 parking spaces, 134,985 square feet of common open space area, landscaping, bio-retention areas, and circulation improvements. The remaining 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area. The proposed project would have a density of approximately 29.8 dwelling units per acre not including the proposed open space and habitat area. With the open space and habitat area included, the density of the proposed project would be approximately 13.5 dwelling units per acre.

Additionally, the project proposes a General Plan Amendment and Rezone to change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area, to allow for the proposed multifamily dwelling unit development, associated amenities, and private open space.

Although development of the proposed residential land uses would be inconsistent with the existing land use and zoning designations, and the neighboring industrial uses, the project site is located in an urban part of the City within close proximity to a range of existing infrastructure and development including commercial uses, parks, single and multifamily residential, and schools/educational facilities. The proposed project would not incorporate new roads or require removal of roads that currently provide access to the area. Furthermore, due to the location of the project site, which is surrounded by existing roadways, no separation or disruption of surrounding uses would occur as a result of project implementation. Because the project site is surrounded on all sides by existing development, and is considered an infill site, it is determined that the proposed project would not divide an established community, and therefore this impact is considered *less than significant*.

**Threshold No. 2: Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

The proposed project would conflict with the current General Plan and zoning Industrial (I) designation for the site. However, as described above and in Chapter 2 of this EIR, the project proposes a General Plan Amendment and Rezone to change the General Plan and Zoning from Industrial (I) to Specific Plan Area to allow for the proposed multifamily dwelling unit development, associated amenities, and private open space. The following is an outline of these requested project entitlements/discretionary actions by the City:

- General Plan Amendment (GPA) – A GPA would be required to re-designate the project site from Industrial (I) to Specific Plan Area.
- Rezone—A rezone would be required to re-designate parcels 219-22-01, 219-22-02, 219-22-03, and 219-22-04 from Industrial (I) to Specific Plan Area.
- Tentative Map—A Tentative Map will present specific lot configurations for the site.
- Multifamily Site Development Plan – A Multifamily Site Development Plan will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.
- Specific Plan—A Specific Plan would be required to provide a comprehensive plan to ensure the efficient development of a new residential community. The Specific Plan serves as both a policy document and a regulatory document for the systematic implementation of the policies and goals of the General Plan.

Upon City approval of the GPA/Rezone from Industrial (I) to Specific Plan Area, the proposed project would be required to comply with the allowable multifamily residential uses and development standards outlined in the Specific Plan prepared for the project site.

Although the proposed project would amend the land use designation, the concurrent process of amending the General Plan designation does not necessarily equate to consistency with the document. As such, a consistency analysis with the City’s General Plan goals is included in Table 3.10-2.

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy   |
|---|---|
| <b>Conservation and Open Space Element</b>  |   |
| <b>Goal COS-1:</b> Identify, protect, and enhance significant ecological and biological resources within San Marcos and its adaptive Sphere of Influence.   | <b>Consistent.</b> Implementation of the proposed project would result in potentially significant impacts to biological resources. However, compliance with existing regulations and implementation of mitigation measures <b>MM BIO-1a</b> through <b>MM BIO-9b</b> outlined in Section 3.3, Biological Resources, would ensure that the proposed project would not conflict with the MHCP or draft San Marcos Subarea Plan, or other applicable regulations related to biological resources. Additionally, 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area. |
| <b>Goal COS-2:</b> The City is committed to conserving, protecting, and maintaining open space, agricultural, and limited resources for future generations. By working with property owners, local organizations, and | <b>Consistent.</b> The project site is currently vacant and zoned for Industrial uses. The project site is considered an infill site as it is surrounded by existing development and infrastructure. Implementation of  |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy  |
|---|--|
| state and federal agencies, the City can limit the conversion of resource lands to urban uses.  | the proposed project would not convert any designated open space or agricultural uses. Additionally, 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area.  |
| <b>Goal COS-3:</b> Protect natural topography to preserve and enhance the natural beauty of San Marcos.   | <b>Consistent.</b> The project site is currently vacant and zoned for Industrial uses. The project site is considered an infill site as it is surrounded by existing development and infrastructure. Development of the project site would not destroy the existing characteristics of the surrounding area as described in Section 3.1, Aesthetics, of this EIR. Additionally, 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area.   |
| <b>Goal COS-4:</b> Improve regional air quality and reduce greenhouse gas emissions that contribute to climate change.  | <b>Consistent.</b> The proposed project would result in fewer greenhouse gas emissions than would occur if the project site were to be developed consistent with the current Industrial zoning, and the proposed project would be required to implement all applicable checklist items within the City’s 2020 Climate Action Plan.   |
| <b>Goal COS-6:</b> Protect and restore appropriate surface water and groundwater beneficial uses through prioritizing the improvement of locally impaired water bodies within the City of San Marcos subwatersheds. | <b>Consistent.</b> The proposed project would be required to comply with the National Pollutant Discharge Elimination System State Water Resources Control Board Construction General Permit Order No. 2009-0009-DWQ for stormwater discharges and general construction activities, and incorporate standard best management practices (BMPs), such as regular cleaning or sweeping of construction areas and impervious areas, and various stormwater BMPs, such as filtration media screens. In compliance with the Construction General Permit, a Stormwater Pollution Prevention Plan (SWPPP) would be required for the project site that specifies BMPs that would be implemented during construction to minimize impacts to water quality. Lastly, project implementation of biofiltration, source control, and site design BMPs would effectively treat post-construction stormwater runoff prior to discharge from the site in compliance with the requirements of the City’s BMP Design Manual and BMPs outlined in the Stormwater Quality Management Plan. |
| <b>Goal COS-7:</b> Achieve sustainable watershed protection for surface and ground water quality that balances social, economical, and environmental needs.   | <b>Consistent.</b> Please refer to the consistency response to Goal COS-6. Implementation of the proposed project would not conflict with the goal to achieve sustainable watershed protection for surface and ground water quality.   |
| <b>Goal COS-8:</b> Focus watershed protection, surface and groundwater quality management on sources and practices that the City has the ability to affect.   | <b>Consistent.</b> Storm drainage components recommended by the Preliminary Drainage Study (Appendix E) would properly handle runoff from the project site to meet   |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals  | Project Consistency with Policy   |
|--|---|
|  | <p>regulatory requirements and to ensure that post-development runoff would occur at rates that are similar to, or less than, pre-development conditions. Appropriate design of on- and off-site drainage facilities, implementation of a SWPPP, Stormwater Quality Management Plan (SWQMP) and BMPs, and implementation of all recommendations from the Preliminary Drainage Study and development-specific drainage plans would ensure the project would not substantially alter the drainage patterns on or off site or result in substantial polluted runoff.</p>   |
| <p><b>Goal COS-11:</b> Continue to identify and evaluate cultural, historic, archeological, paleontological, and architectural resources for protection from demolition and inappropriate actions.</p> | <p><b>Consistent.</b> A Cultural Resources Inventory Report was prepared for the project site to ensure existing resources are protected (Appendix D). Implementation of the proposed project would not impact any identified archaeological resources, historical resources, or any known human remains interred outside a formal cemetery. However, based upon the analysis presented in Section 3.4, Cultural Resources, the potential exists for impacts to unknown cultural resources resulting from project construction.</p> <p>These potentially significant impacts to archaeological resources and human remains would be mitigated to below a level of significance through implementation of mitigation measures MM-TCR-1 through MM-TCR-4. Specifically, implementation of mitigation measures MM-TCR-1 through MM-TCR-4 provide for the presence of archaeological and Native American monitors during ground disturbing activities that would be able to identify any previously unidentified cultural resources and to prevent inadvertent disturbance of any intact cultural deposits that may be present. Should any resources be identified, implementation of mitigation measures MM-TCR-1 through MM-TCR-4 would ensure proper handling and treatment of such resources by providing for a proper evaluation to determine whether additional archaeological work is necessary.</p> |
| <b>Land Use and Community Design Element</b>   |   |
| <p><b>Goal LU-1:</b> Achieve a balanced distribution and compatible mix of land uses to meet the present and future needs of all residents and the business community.</p>                             | <p><b>Consistent.</b> While the proposed project land use designation would not mirror immediately adjacent industrial and commercial land uses, it would be consistent with the single- and multifamily residential uses located to the west and south of the adjacent Bradley Park and be consistent with the goal to achieve a balanced distribution and compatible mix of land uses to meet the present and future needs of the City.</p>   |
| <p><b>Goal LU-2:</b> Promote development standards and land use patterns that encourage long-term environmental sustainability.</p>  | <p><b>Consistent.</b> The proposed project would implement the overarching goals of the City’s General Plan, through various proposed features and components such as</p>   |



**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals  | Project Consistency with Policy  |
|--|--|
|  | <p>providing housing near transit and existing commercial and industrial uses; providing diverse and higher-density housing; designating opportunities for recreational and open space areas; and supporting vehicular, bicycle, and pedestrian modes of travel.</p>   |
| <p><b>Goal LU-3:</b> Develop land use patterns that are compatible with and support a variety of mobility opportunities and choices.</p>   | <p><b>Consistent.</b> The North County Transit District operates the Palomar College Station Sprinter and Breeze transit station located approximately 0.6 miles from the proposed project’s La Mirada Drive entrance. The proposed project would also be located walking and biking distance from retail, school, park, and other facilities. The proposed project would therefore support a variety of mobility opportunities, and would promote multimodal transportation, consistent with General Plan Land Use Element Goals LU-2, LU-3, and LU-7. The proposed project would be designed to ensure aesthetic consistency with the surrounding area and compliance with General Plan Land Use Element Goal LU-5. Consistent with Goal LU-8, the proposed project would be required to pay its fair share public facility fees and other development impact fees consistent with the City’s Municipal Code (refer to Sections 3.13 (Public Services), 3.14 (Recreation), 3.15 (Transportation), and 3.17 (Utilities and Service Systems) for a discussion of potential impacts to public infrastructure and facilities and required development fees).</p> |
| <p><b>Goal LU-5:</b> Promote community design that produces a distinctive, high-quality built environment with forms and character that create memorable places and enrich community life.</p>   | <p><b>Consistent.</b> All final project plans, including project renderings as shown in Figures 2-6a through 2-6d in Chapter 2 of this EIR, would be reviewed by the City and would be expected to create a cohesive character with the surrounding environment.</p>   |
| <p><b>Goal LU-7:</b> Direct and sustain growth and expansion in areas of San Marcos that can support a concentration of a variety of uses and are particularly suitable for multimodal transportation and infrastructure expansion and improvements.</p> | <p><b>Consistent.</b> The proposed project would promote sustainability through locating residential uses on an underutilized infill site proximate to existing schools, markets, parks, transit, and shopping centers. Vehicle miles traveled would be reduced by sustainably locating residential uses in this infill area.</p>  |
| <p><b>Goal LU-8:</b> Ensure that existing and future development is adequately serviced by infrastructure and public services.</p>   | <p><b>Consistent.</b> As outlined in Section 3.13 of this EIR, the project would be adequately served by San Marcos Fire Department, San Marcos Sheriff’s Department, and San Marcos Unified School District, as well as existing infrastructure in the area.</p>  |
| <p><b>Goal LU-14:</b> Wastewater: Ensure an adequate wastewater system for existing and future development.</p>  | <p><b>Consistent.</b> Wastewater service for proposed residential uses will be provided by Vallecitos Water District (VWD). An 8-inch gravity sewer main is located in La Mirada Drive. An existing 8-inch sewer line is located in Linda Vista Drive. South Las Posas Road includes existing 10-inch and 18-inch gravity sewer lines. An 8-inch sewer main is located in South Pacific</p>  |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy  |
|---|--|
|   | <p>Street. Sewer service will connect to three separate sewer systems within the project site. The proposed condominiums would provide two 8-inch connections to the existing 8-inch sewer main in La Mirada Drive and existing 8-inch sewer main in South Pacific Street. The proposed apartments would connect one 8-inch sewer line to the either existing 10- or 15-inch sewer main in South Las Posas Road. The proposed affordable units would connect one 8-inch sewer line in Linda Vista Drive.</p> <p>A Sewer and Water Study was completed for the proposed project by Dexter Wilson Engineering in March 2021 (Appendix L to this EIR). This study confirmed that a formal sewer study will be required by VWD. Additionally, the City requires that VWD provide a letter of Sewer Availability for proposed developments within VWD. Prior to issuing such a letter, VWD’s study will determine whether the current infrastructure is sufficient to accommodate the development project, and/or to provide recommendations for capital improvements to provide service.</p> |
| <p><b>Goal LU-17:</b> Utilities and Communications: Encourage provision of power and communication systems that provide reliable, effective and efficient service for San Marcos.</p> | <p><b>Consistent.</b> Communications systems for telephones, computers, and cable television are serviced by utility providers such as AT&amp;T, Cox, Spectrum, and other independent cable companies. No specific systems upgrades are proposed.</p>  |
| <p><b>Mobility Element</b></p>  |  |
| <p><b>Goal M-1:</b> Provide a comprehensive multimodal circulation system that serves the City land uses and provides for the safe and effective movement of people and goods.</p>    | <p><b>Consistent.</b> The proposed project would promote sustainability through locating residential uses on an underutilized infill site proximate to existing schools, markets, parks, transit, and shopping centers. Vehicle miles traveled would be reduced by sustainably locating residential uses in this infill area. In addition, the project would be required to comply with Title 24 requirements and would include amenities such as electric vehicle charging stations, installation of electric or solar water heaters, implementation of a Transportation Demand Management plan, reduced landscaping water use, and planting of trees.</p>  |
| <p><b>Goal M-2:</b> Protect neighborhoods by improving safety for all modes of travel and calming traffic where appropriate.</p>  | <p><b>Consistent.</b> The proposed project would be required to provide a proposed circulation plan outlining safe movement within the project site, including emergency access, subject to review by the City and the San Marcos Fire Department. The conceptual site plan and parking plan for the proposed project is provided as Figure 2-5 in Chapter 2 of this EIR. All final project plans would be subject to review and approval by the City. Under existing conditions, on-street parking on adjacent streets is limited to Pacific Street and La</p>  |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals  | Project Consistency with Policy  |
|--|--|
|  | <p>Mirada Drive. On-street parking is prohibited on South Las Posas Road and Linda Vista Drive.</p> <p>The internal circulation network for the proposed project would not include any hazardous design features or incompatible uses. The proposed project would include circulation amenities and improvements such as an interconnected mobility system for bicycles, pedestrians, and vehicles in order to provide residents with safe movement within the project site; as well as secondary emergency access, connections to existing roadways within the vicinity of the project site, and access to regional arterial and highway networks and Sprinter/Breeze transit services.</p>   |
| <p><b>Goal M-3:</b> Promote and encourage use of alternative transportation modes, including transit, bicycles, neighborhood electric vehicles (NEVs), and walking, within the City.</p> | <p><b>Consistent.</b> The North County Transit District provides public transportation within the City and the County of San Diego for Coaster rail service, Sprinter light rail service, and Breeze bus service. The North County Transit District operates the Palomar College Station Sprinter and Breeze transit station located approximately 0.6 miles from the proposed project’s La Mirada Drive entrance. The proposed project would be required to comply with Title 24 requirements and would include amenities such as electric vehicle charging stations and implementation of a Transportation Demand Management Plan.</p>   |
| <b>Parks, Recreation, and Community Health Element</b>   |  |
| <p><b>Goal PR-1:</b> Plan for, acquire, develop, and maintain a system of local parks connected through an integrated network of trails and high quality recreational facilities.</p>    | <p><b>Consistent.</b> Approval of the proposed GPA/Rezone to Specific Plan Area would allow for immediate residential access to Bradley Park, located adjacent to the project site. As shown on Figure 2-5 in Chapter 2 of this EIR, the proposed project proposes 134,985 square feet of common open space area, which would provide for private open space/passive recreational use for residents on site. Additionally, the proposed project applicant/developer would be required to pay the City’s Public Facilities Fees. Developer payment towards the City’s Public Facilities Fees would go towards the acquisition and development of local and community park facilities throughout the City to offset the demand on public park space.</p> |
| <b>Safety Element</b>  |  |
| <p><b>Goal S-1:</b> Reduce risks to the community from earthquakes by regulating new development and redevelopment to prevent the creation of new geologic and seismic hazards.</p>      | <p><b>Consistent.</b> There are no known active faults that run through the project site. The proposed project would be designed in accordance with applicable California Building Code requirements, including for resistance to seismic shaking. Furthermore, the proposed project would be constructed in accordance with other applicable regulations, the current seismic design</p>  |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals  | Project Consistency with Policy  |
|--|--|
|  | <p>specifications of the Structural Engineers Association of California, and all applicable requirements of the California Occupational Safety and Health Administration. These required seismic design considerations are used to minimize structural damage in the event of ground shaking.</p> <p>Additionally, the proposed project would implement all recommendations per the Preliminary Geotechnical Evaluation (Appendix F), as well as any project-specific recommendations with any potential supplemental geotechnical evaluations, in compliance with Section 17.32.040(f) of the City’s Municipal Code.</p>  |
| <p><b>Goal S-2:</b> Minimize the risk to people, property, and the environment due to flooding hazards.</p>                    | <p><b>Consistent.</b> The proposed project would include implementation of BMPs during construction and proposed storm drain and biofiltration basins during operation as recommended by the Preliminary Drainage Study (Appendix E). These BMPs would be sized to treat, store, and release stormwater runoff such that it does not substantially alter the existing drainage patterns and will not exceed the capacity of the downstream storm drain system. Implementation of BMPs would be a condition of approval for the proposed project to ensure facilities would be designed to collect and convey runoff from 100-year storm events, as well as to handle runoff and comply with applicable regulatory requirements.</p>  |
| <p><b>Goal S-3:</b> Minimize injury, loss of life, and damage to property results from structure or wildland fire hazards.</p> | <p><b>Consistent.</b> The proposed project site lies within an area considered a Non-High Hazard Severity Zone, as designated by the City of San Marcos and the California Department of Forestry and Fire Protection (CAL FIRE). The existing project site is an undeveloped lot that is relatively flat and shows signs of previous disturbance. The proposed redesignation of the project site from industrial uses to residential uses under the proposed Specific Plan Area would likely reduce the potential for wildfire hazards on site. The proposed project would not include associated infrastructure that may exacerbate fire risk.</p> <p>Additionally, the proposed project would be required to comply with all applicable state and local fire codes, including compliance with the California Fire Code and the San Marcos Fire Department, which require a design that affords fire and emergency responders suitable fire access roads dimensions and surfaces (Chapter 5, Section 503.1 through 503.4 of the California Fire Code); an adequate number of emergency rated entrances to the community (Appendix D, Section D106 of the California Fire</p> |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy   |
|---|---|
| <p><b>Goal S-4:</b> Protect life, structures, and the environment from the harmful effects of hazardous materials and waste.</p>  | <p>Code); and entryway gate access for first responders (Chapter 5 of the California Fire Code, Section 503.6).</p> <p><b>Consistent.</b> Construction of the proposed project would entail transport, use, or disposal of potentially hazardous materials including, but not limited to diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, lubricant oils, adhesives, human waste, and chemical toilets. The proposed project would be required to comply with all standards required through federal, state, county, and municipal regulations, in addition to project-specific plan review by the City, which would ensure potential impacts related to hazardous materials would not be significant. Furthermore, hazards associated with development and operation of residential developments would likely be less than that associated with industrial development, which is the current designated land use for the project site.</p> <p>Proposed uses would be limited to multifamily residences, residential amenities, and open space uses, which are not typically characteristic of generating, releasing, or using large amounts of hazardous materials. During operations of the proposed project, the only hazardous materials anticipated for transport, use, or disposal are routinely used household products such as cleaners, paint, solvents, motor oil/automotive products, batteries, and garden maintenance products. The use, handling, and disposal of these products are addressed by household hazardous waste programs that are part of the Integrated Watershed Monitoring Program the County of San Diego, and therefore the proposed project is not expected to create a significant hazard to the public or environment through hazardous upsets or accidents.</p> |
| <p><b>Goal S-5:</b> Establish and maintain an effective emergency response program to respond to disasters and maintain continuity-of-life support functions during an emergency.</p> | <p><b>Consistent.</b> According to the General Plan Safety Element, the San Marcos Emergency Operations Plan (EOP) governs the operations of the City during a disaster. This plan addresses response to moderate evacuation scenarios, including the identification of evacuation points and general routes (City of San Marcos 2012e). The proposed project would be required to abide by standards as set forth in the San Marcos EOP. The proposed project would not impact any roadway or staging areas that are identified in any emergency planning documents and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</p>   |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy   |
|---|---|
| <p><b>Goal S-6:</b> Provide neighborhood safety through effective law enforcement.</p>                  | <p><b>Consistent.</b> Implementation of the proposed project would be expected to increase the frequency of emergency and non-emergency calls to the Sherriff’s Department. However, over 100 deputies, volunteers, and professional staff serve the residents of the City. Law enforcement services include general patrol, criminal investigation, crime prevention, juvenile services, narcotics and gang investigations, communications and dispatch, and various management support services. Police units are continuously mobile, and service calls are responded to by the nearest available mobile unit. At the San Marcos Station, patrol deputies are assigned to a geographical “beat” area, allowing deputies to become familiar with citizens and problems within their “beats” (SDCSD 2021). Accordingly, service ratios and response times are anticipated to remain adequate with development of the proposed project. As such, the proposed project is not expected to affect police protection such that new or physically altered governmental facilities are needed.</p> |
| <p><b>Goal S-7:</b> Comply with the McClellan-Palomar Airport Land Use Compatibility Plan.</p>          | <p><b>Consistent.</b> The project site is located within the McClellan-Palomar Airport Influence Review Area 2 (San Diego County Regional Airport Authority 2011). The influence area is regulated by the ALUC, which regulates land uses in the area to be compatible with airport-related noise, safety, airspace protection, and over-flight factors through review of development proposals within the airport influence area. Review Area 2 consists of limits on heights of structures in areas of high terrain. Residential development in Review Area 2 may be subject to annoyances commonly associated with proximity to airports, such as noise, vibration, and overflights. With overflight notification and compliance with AIA 2 requirements, the project would not conflict with the McClellan-Palomar Airport Land Use Compatibility Plan.</p>   |
| <p><b>Noise Element</b></p>   |   |
| <p><b>Goal N-1:</b> Promote a pattern of land uses compatible with current and future noise levels.</p> | <p><b>Consistent.</b> The project site is surrounded by industrial uses to the north, south, and west, and commercial uses to the east, specifically the Grand Plaza shopping center is located directly across South Las Posas Road. The 24-acre Bradley Park is located across from the site’s southwestern corner. Residential uses are located to the south and west of Bradley Park. The project site is located in an urban setting and is considered an infill site. Surrounding land uses outside of the immediately adjacent industrial and commercial land uses include designated parks, single and multifamily residential, and</p>   |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy   |
|---|---|
| <p><b>Goal N-2:</b> Control transportation-related noise from traffic, rail, and aviation sources near noise sensitive land uses.</p>                       | <p>schools/educational facilities. Noise generated by the proposed project would be similar to that of existing land uses in the vicinity.</p> <p><b>Consistent.</b> As described in Section 3.11, Noise, of this EIR, the addition of traffic to the roadway network as a result of the proposed project would result in a community noise equivalent level (CNEL) increase of less than 3 decibels (dB), which is below the discernible level of change for the average healthy human ear. Therefore, a less than significant impact would occur related to operational traffic noise. Additionally, the proposed project would meet the City’s and California Building Code’s requirement to reduce interior ambient noise levels to 45 dB CNEL within habitable rooms of new residential development. The proposed project would not conflict with this City regulation or General Plan policy for purposes of evaluating the project’s land use/planning impacts. The project site is located within the McClellan-Palomar Airport Influence Review Area 2 (San Diego County Regional Airport Authority 2011). The influence area is regulated by the ALUC, which regulates land uses in the area to be compatible with airport-related noise, safety, airspace protection, and over-flight factors through review of development proposals within the airport influence area. Review Area 2 consists of limits on heights of structures in areas of high terrain. Residential development in Review Area 2 may be subject to annoyances commonly associated with proximity to airports, such as noise, vibration, and overflights. Compliance with AIA 2 requirements would ensure the project would not conflict with the McClellan-Palomar Airport Land Use Compatibility Plan.</p> |
| <p><b>Goal N-3:</b> Control non-transportation-related noise from commercial, industrial, construction, and other sources on noise sensitive land uses.</p> | <p><b>Consistent.</b> Potential noise impacts during construction would be less than significant with implementation of recommended design features. Noise impacts due to operation of the proposed project would be less than significant and no further mitigation is required. Further, the proposed project would comply with the General Plan’s 45 dBA interior noise standard.</p>  |
| <p><b>Housing Element</b></p>   |   |
| <p><b>Goal H-1:</b> Provide a broad range of housing opportunities with emphasis on providing housing which meets the special needs of the community.</p>   | <p><b>Consistent.</b> Implementation of the proposed project would change the site’s land use designation and zoning from Industrial to Specific Plan Area, allowing for development of the proposed 449 residential units and associated amenities on an infill site with existing roads, alternative transportation, and utilities in the immediate area.</p>   |

**Table 3.10-2. General Plan Consistency**

| Applicable General Plan Goals   | Project Consistency with Policy   |
|---|---|
| <p><b>Goal H-2:</b> Protect, encourage, and provide housing opportunities for persons of lower and moderate incomes.</p>  | <p><b>Consistent.</b> The proposed project would change the land use and zoning designations at the project site to allow for multifamily residential development under the proposed Specific Plan Area. Approval of the proposed GPA/Rezone could help the City address the substantial population growth within the City, and the need for housing, including contribution to housing for extremely low, very low-, low-, and moderate-income households.</p> |
| <p><b>Goal H-4:</b> Reduce or remove governmental constraints to the development, improvement, and maintenance of housing where feasible and legally permissible.</p> | <p><b>Consistent.</b> The proposed project proposes development of 449 residential units, which requires City approval of a GPA/Rezone from Industrial (I) to Specific Plan Area to allow for residential development of the currently vacant site.</p>   |

As shown in Table 3.10-2, the proposed project would not result in a significant environmental impact due to a conflict with the City’s General Plan Land Use Element goals. Land Use Element goals not referenced above, including LU-4, LU-5, LU-6, LU-9 through LU-13, LU-15, and LU-16 are not relevant to this discussion as they do not apply to individual projects or mitigating environmental effects. Instead, these goals pertain to overall goals of the City related to education, business, and provision of community facilities and infrastructure. Project implementation would not impede the City’s ability to achieve these goals.

**2050 Regional Transportation Plan/Sustainable Communities Strategy**

SANDAG’s 2050 RTP/SCS outlines projects for rail and bus services, highways, local streets, bicycling, walking, and movement of goods, as well as systems and demand management. The 2050 RTP/SCS presents a transportation system designed to maximize transit enhancements, integrate biking and walking elements, and promote programs to reduce demand and increase efficiency. As described in Section 3.15, Transportation, of this EIR, the proposed project would provide for residential land uses in an infill area, taking advantage of the site’s location near transit, retail, employment, schools, parks, and other uses. The proposed project would be consistent with programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. For the CEQA transportation vehicle miles traveled analysis, the SANDAG Series 13 Base Year 2012 regional travel demand model was customized for the proposed project land uses and used to calculate the project’s vehicle miles traveled per Resident. Based on the results, the proposed project’s vehicle miles traveled per resident is less than 85% of the regional average, at just 62% of the regional average.

Although the proposed project would not be consistent with the existing zoning and land use designations, the proposed project would generate fewer greenhouse gas emissions at buildout than potential development permitted under the existing land use designations. Thus, the proposed project would not increase land use intensities as provided in the RTP/SCS and would therefore not result in environmental impacts due to inconsistency with this plan.



### Multiple Habitat Conservation Program

As described under Section 3.10.2, Regulatory Setting, the MHCP is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County (SANDAG 2003). As identified above, the project site is located within the northern Focused Planning Area within the MHCP planning area. As described throughout Section 3.3, Biological Resources, of this EIR, proposed project implementation would result in potentially significant impacts to biological resources. However, compliance with existing regulations and implementation of mitigation measures MM BIO-1a through MM BIO-9b outlined in Section 3.3 would ensure that the proposed project would not conflict with the MHCP or draft San Marcos Subarea Plan, or other applicable regulations related to biological resources. Implementation of proposed mitigation, and City review of development plans for the project site would ensure impacts to biological resources would be less than significant. Furthermore, the proposed project would be consistent with the Conservation and Open Space Element goals of the City's General Plan.

### San Marcos Municipal Code Zoning Ordinance Title 20

As described above, a rezone would be required to re-designate the project site from Industrial (I) to Specific Plan Area. Approval of the proposed GPA/Rezone would allow for development of the project site with the proposed residential land uses and associated amenities and improvements. Although the proposed project would amend the land use designation to Specific Plan Area, the concurrent process of amending the Zoning designation does not necessarily equate to consistency with the Zoning Ordinance. However, as shown in Table 3.10-2, the proposed project would be consistent with the majority of the City's General Plan goals, that guide development within the City. Therefore, the proposed rezoning of the site would be consistent with the City's Zoning Ordinance.

Based on the considerations outlined above, the proposed project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, project impacts related to land use and planning are determined to be less than significant.

## 3.10.5 Mitigation Measures

No mitigation specific to land use and planning would be required as a result of the proposed project. However, the project would be required to incorporate mitigation measures proposed throughout Chapter 3, Environmental Analysis, of this EIR to ensure project implementation would not result in significant land use impacts.

## 3.10.6 Conclusion

Based upon the analysis presented in Section 3.10.4, development of the proposed 449 residential units, upon approval of the proposed GPA/Rezone of the project site from Industrial (I) to Specific Plan Area, would not result in significant impacts to land use and planning. The proposed project would be required to incorporate technical report recommendations, design standards outlined in the Specific Plan for the project site, and mitigation measures identified throughout Chapter 3 of this EIR to ensure project implementation would not result in significant impacts or inconsistency with applicable land use plans and policies. As outlined in Table 3.10-2, the proposed project would be consistent with the applicable goals and policies of the City's General Plan. As analyzed throughout Chapter 3 of this EIR, implementation of the proposed project would not result in any significant unavoidable impacts, and all potentially significant impacts to air quality, biological resources, cultural resources, and tribal cultural resources would be reduced to a level of less-than-significant with mitigation incorporated. Furthermore, final project plans would be subject to City review and approval. For these reasons, impacts related to land use and planning are determined to be less than significant.

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## 3.11 Noise

This section discusses the existing noise and vibration setting of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. This section is based on the Noise Technical Report prepared for the proposed project by Dudek in November 2022, which is included as Appendix I to this EIR.

Table 3.11-1 summarizes the project- and cumulative-level noise impact analysis for the proposed project.

**Table 3.11-1. Noise Summary of Impacts**

| Threshold of Significance   | Project Direct Impact | Project Cumulative Impact | Significance Determination |
|---|-----------------------|---------------------------|----------------------------|
| No. 1 - Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.  | Less Than Significant | Less than Significant     | Less Than Significant      |
| No. 2- Generation of excessive groundborne vibration or groundborne noise levels.   | Less Than Significant | Less than Significant     | Less Than Significant      |
| No. 3 - Exposure of people residing or working in the project area to excessive noise levels, for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport. | No Impact             | No Impact                 | No Impact                  |

### 3.11.1 Existing Conditions

This section provides background on noise characteristics and vibration fundamentals, and a description of the existing noise environment associated with the project site and the surrounding area.

#### Noise Characteristics

Sound is mechanical energy transmitted by pressure waves in a compressible medium, such as air. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired. The sound pressure level (SPL) has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of measurement of sound pressure is a decibel (dB). It is widely accepted that the average healthy ear can barely perceive noise level changes of 3 dB, a change of 5 dB is readily perceptible, and a change of 10 dB is perceived as twice or half as loud (Caltrans 2013). A doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the number of daily trips along a given road) would result in a barely perceptible change in sound level.

Sound may be described in terms of level or amplitude (measured in dB), frequency or pitch (measured in hertz or cycles per second), and duration (measured in seconds or minutes). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear.

Several descriptors of noise (a.k.a., noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise. These descriptors include the equivalent noise level over a given period ( $L_{eq}$ ), the day-night average noise level ( $L_{dn}$ ), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA.

$L_{eq}$  is a decibel quantity that represents the constant or energy-averaged value equivalent to the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour  $L_{eq}$  measurement of 60 dBA would represent the average amount of energy contained in all the noise that occurred in that hour.  $L_{eq}$  is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors, which can then be compared to an established  $L_{eq}$  standard or threshold of the same duration. Another descriptor is maximum sound level ( $L_{max}$ ), which is the greatest sound level measured during a designated time interval or event. The minimum sound level is often called the “floor” of a measurement period.

$L_{dn}$  and CNEL descriptors represent 24-hour periods and differ from a 24-hour  $L_{eq}$  value because they apply a time-weighted factor designed to emphasize noise events that occur during the non-daytime hours (when speech and sleep disturbance is of more concern). “Time weighted” refers to the fact that  $L_{dn}$  and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m. to 7:00 p.m.) receives no penalty, but noise during the evening (7:00 p.m. to 10:00 p.m.) is penalized by adding 5 dB to the actual levels, and nighttime (10:00 p.m. to 7:00 a.m.) noise is penalized by adding 10 dB to the actual levels.  $L_{dn}$  differs from CNEL in that the daytime period is longer (defined instead as 7:00 a.m. to 10:00 p.m.), thus eliminating the dB adjustment for the evening period.  $L_{dn}$  and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5–1 dB and are often considered or actually defined as being essentially equivalent by many jurisdictions (Appendix I).

## Vibration Fundamentals

Vibration is oscillatory movement of mass (typically a solid) over time. It is described in terms of frequency and amplitude and, unlike sound, can be expressed as displacement, velocity, or acceleration. Vibration is typically discussed in terms of inches per second (ips) peak particle velocity (PPV), which will be used herein to discuss vibration levels for comparison with relevant standards.

Common sources of vibration within communities include construction activities and railroads. Vibration can impact buildings if of sufficient magnitude; however, vibration associated with heavy equipment operation (i.e., construction equipment) is seldom of sufficient magnitude to cause even minor cosmetic damage to buildings. Vibration can also be annoying and thereby impact occupants of structures, and vibration of sufficient amplitude can disrupt sensitive equipment and processes (Caltrans 2020), such as those involving the use of electron microscopes and lithography equipment. Caltrans estimates that the level at which continuous vibration begins to annoy people is approximately 0.010 ips PPV (Caltrans 2013).

Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities where sudden releases of subterranean energy or

powerful impacts of tools on hard materials occur. Depending on their distances to a sensitive receptor, operation of large bulldozers, graders, loaded dump trucks, or other heavy construction equipment and vehicles on a construction site also have the potential to cause high vibration amplitudes (Appendix I).

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to rapidly decrease with distance away from the source. Soil properties also affect the propagation of vibration. Human-made vibration issues are, therefore, usually confined to short distances from the source (i.e., 50 feet or less).

### Existing Noise Environment

The project site is currently vacant and does not contain any sources of noise or vibration generation. However, the project site is located in an urbanized infill area, bordered by existing roadways and industrial and commercial uses. Sources of noise in the surrounding area primarily include traffic from the local roadways, including South Las Posas Road.

SPL measurements were conducted near the proposed project site on March 10, 2021, to quantify and characterize the existing outdoor ambient noise levels. Table 3.11-1 provides the location, date, and time period during which these baseline noise level measurements were performed. Noise measurements were performed by an attending Dudek field investigator using a Rion-branded Model NL-52 sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 1 (Precision Grade) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Four short-term (ST) noise level measurement locations (ST1–ST4) intended to be representative of the outdoor ambient sound environment for existing noise-sensitive receivers in the vicinity of the proposed project were selected near the proposed project site. These locations are depicted as receivers ST1–ST4 on Figure 3, Noise Measurement and Modeled Receptor Locations, in Appendix I. The measured  $L_{eq}$  and  $L_{max}$  noise levels at these surveyed locations are provided in Table 3.11-2. The primary noise sources at the sites identified in Table 3.11-2 consisted of traffic along adjacent roadways, the sounds of leaves rustling, and birdsong. As shown in Table 3.11-2, the measured  $L_{eq}$  ranged from 60.5 dBA  $L_{eq}$  at ST3 to 66.9 dBA  $L_{eq}$  at ST1, while  $L_{max}$  ranged from 71.1 dBA  $L_{max}$  at ST3 to 75.9  $L_{max}$  at ST1. Detailed noise measurement data is included as part of Appendix I to this EIR.

**Table 3.11-2. Measured Baseline Outdoor Ambient Noise Levels**

| Site | Location/Address  | Date/Time                            | $L_{eq}$ | $L_{max}$ |
|------|---|--------------------------------------|----------|-----------|
| ST1  | Perpendicular to project site, East of S. Las Posas Rd. | 2021-03-10, 11:50 a.m. to 12:00 p.m. | 66.9     | 75.9      |
| ST2  | Perpendicular to project site, North of La Mirada Dr.   | 2021-03-10, 12:10 p.m. to 12:20 p.m. | 61.0     | 71.8      |
| ST3  | Perpendicular to project site, West of S. Pacific St.   | 2021-03-10, 12:30 p.m. to 12:40 p.m. | 60.5     | 71.1      |
| ST4  | Perpendicular to project site, South of Linda Vista Dr. | 2021-03-10, 12:45 p.m. to 12:55 p.m. | 64.7     | 74.9      |

**Source:** Appendix I.

**Notes:**  $L_{eq}$  = equivalent continuous sound level (time-averaged sound level);  $L_{max}$  = maximum sound level during the measurement interval; dBA = A-weighted decibels; ST = short-term noise measurement locations.

Because existing outdoor ambient noise exceeds 60 dBA  $L_{eq}$  during the daytime, as shown in Table 3.11-2, Federal Transit Administration guidance suggests that average nighttime ambient noise levels would be at least 50 dBA  $L_{eq}$ .

Generally, the measured samples of daytime  $L_{eq}$  agree with expectations: ST1 is near 67 dBA  $L_{eq}$  due largely to its proximity to South Las Posas Road, a major roadway and thus fairly continuous acoustical contributor to the measured outdoor ambient sound environment. Although the nearest single-family home is located approximately 1,420 feet away, due to the City of San Marcos adopting the County of San Diego's Noise Ordinance, a distance of 150 feet to nearest occupied building was used for noise analysis and modeling.

### Sensitive Receptors

Uses that are typically considered noise sensitive include residences, schools, hospitals, parks, and wildlife habitats. The nearest sensitive receptors to the project site would be Bradley park located across from the site's southwestern corner, and single- and multifamily residential uses located to the west and south of Bradley park.

## 3.11.2 Regulatory Setting

### Federal

#### Occupational Safety and Health Administration

With regard to noise exposure and workers, the federal Occupational Safety and Health Administration establishes regulations to safeguard the hearing of workers exposed to occupational noise (29 FR 1910.95). The Occupational Safety and Health Administration specifies that sustained noise that is louder than 85 dBA (8-hour time-weighted average) can be a threat to workers' hearing and if worker exposure exceeds this amount, the employer must develop and implement a monitoring program (29 FR 1910.95[d][1]).

#### Federal Transit Administration

In its Transit Noise and Vibration Impact Assessment guidance manual, the Federal Transit Administration recommends a daytime construction noise level threshold of 80 dBA  $L_{eq}$  over an 8-hour period (FTA 2018) when detailed construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project. Although this Federal Transit Administration guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the state and local jurisdictional levels.

### State

#### California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare. The California Noise Control Act seeks to provide assistance to local agencies in preparation of ordinances to control and abate noise.

## California Code of Regulations, Title 24

Title 24 of the California Code of Regulations sets standards that new development in California must meet. According to Title 24, interior noise levels are not to exceed 45 dBA CNEL in any habitable room (International Construction Code 2019), as demonstrated by a project-specific acoustical analysis.

## California Department of Health Services Guidelines

The California Department of Health Services has developed guidelines of community noise acceptability for use by local agencies (OPR 2003). Selected relevant levels are listed here:

- Below 60 dBA CNEL: normally acceptable for low-density residential use
- 50 to 70 dBA: conditionally acceptable for low-density residential use
- Below 65 dBA CNEL: normally acceptable for high-density residential use and transient lodging
- 60 to 70 dBA CNEL: conditionally acceptable for high-density residential, transient lodging, churches, educational, and medical facilities

## California Department of Transportation

In its Transportation and Construction Vibration Guidance Manual (Caltrans 2020), the California Department of Transportation (Caltrans) recommends 0.5 ips PPV as a threshold for the avoidance of structural damage risk to typical newer residential buildings exposed to continuous or frequent intermittent sources of groundborne vibration. For transient vibration events, such as blasting, the damage risk threshold would be 1.0 ips PPV (Caltrans 2020) at the same type of newer residential structures. For older structures, these guidance thresholds would be more stringent: 0.3 ips PPV for continuous/intermittent vibration sources and 0.5 ips PPV for transient vibration events. With respect to human annoyance, Caltrans guidance indicates that building occupants exposed to groundborne vibration of 0.10 ips PPV from continuous or frequently intermittent sources may find it “strongly perceptible” (Caltrans 2020) and on such basis would thus be considered a significant groundborne vibration impact for purposes of this assessment. Although these Caltrans guidance thresholds are not regulations, they can serve as quantified standards in the absence of such limits at the local jurisdictional level.

## Local

The following are summarized or reproduced portions of relevant City regulations and General Plan policies.

### City of San Marcos Municipal Code

The City of San Marcos Municipal Code Chapter 10.24: Noise (City of San Marcos 2017) addresses construction noise. Erection and demolition of buildings is exempt between 7:00 a.m. and 6:00 p.m. Monday through Friday, and on Saturdays from 8:00 a.m. to 5:00 p.m. The City’s Municipal Code Section 17.32.180 establishes time limits for grading and other earthwork. Section 17.32.180 provides grading noise is restricted to the hours of 7:00 a.m. and 4:30 p.m. Monday through Friday and is not allowed in the City on the weekends or holidays. The Municipal Code does not set noise limits on construction activities. Commonly, the City has utilized the County of San Diego’s Noise Ordinance noise limit of 75 dBA (8-hour average) for construction activities.

Chapter 20.300 (Site Planning and General Development Standards) of the City’s Municipal Code includes noise regulations in the form of noise standards by zone (Section 20.300.070, Performance Standards).

Municipal Code noise standards typically pertain to stationary (i.e., non-transportation-related) noise sources. The relevant portions of these noise standards are provided below:

1. Noise shall be measured with a sound-level meter that meets the standards of the American National Standards Institute (ANSI) (Section S1.4-1979, Type 1 or Type 2). Noise levels shall be measured in decibels at the property line of the receptor property, and at least five (5) feet above the ground and ten (10) feet from the nearest structure or wall. The unit of measure shall be designated as an A-weighted decibel (dBA)  $L_{eq}$  standard. A calibration check shall be made of the instrument at the time any noise measurement is made (Ord. No. 2017-1446, 7-25-2017)
2. No person shall create or allow the creation of exterior noise that causes the noise level to exceed the noise standards established by Table 20.300-4 [shown in Table 3.11-3]. Increases in allowable noise levels listed in Table 20.300-4 may be permitted in accordance with the standards outlined in Table 20.300-5 6 [shown in Table 3.11-4].
3. No person shall create nor allow the creation of noise that causes the interior noise level when measured within a dwelling unit to exceed forty-five (45) dBA at any time, except as permitted by Table 20.300-6 [shown in Table 3.11-5].
4. Use of compressors or other equipment, including vents, ducts, and conduits, but excluding window or wall-mounted air conditioners, that are located outside of the exterior walls of any building, shall be enclosed within a permanent, non-combustible, view-obscuring enclosure to ensure that the equipment does not emit noise in excess of the ANSI standards.

**Table 3.11-3. Exterior Noise Standards by Zone**

| Zone   | Allowable Noise Level (dBA $L_{eq}$ ) Measured from the Property Line |
|--|---|
| <b>Single-Family Residential (A, R-1, R-2) <sup>1, 2</sup></b> |   |
| 7 a.m. to 10 p.m. (daytime)                                    | 60  |
| 10 p.m. to 7 a.m. (overnight)                                  | 50  |
| <b>Multifamily Residential (R-3) <sup>1, 2</sup></b>           |   |
| 7 a.m. to 10 p.m. (daytime)                                    | 65  |
| 10 p.m. to 7 a.m. (overnight)                                  | 55  |
| <b>Commercial (C, O-P, SR) <sup>3</sup></b>                    |   |
| 7 a.m. to 10 p.m. (daytime)                                    | 65  |
| 10 p.m. to 7 a.m. (overnight)                                  | 55  |
| <b>Industrial</b>  |   |
| 7 a.m. to 10 p.m. (daytime)                                    | 65  |
| 10 p.m. to 7 a.m. (overnight)                                  | 60  |

Source: City of San Marcos 2017 (Table 20.300-4).

**Notes:**

- <sup>1</sup> For single-family detached dwelling units, the "exterior noise level" is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: (i) for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, (ii) for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; (iii) for lots over 10 acres in area, the exterior area shall include 1 acre.
- <sup>2</sup> For all other residential land uses, "exterior noise level" is defined as noise measured at exterior areas which are provided for private or group usable open space purposes. "Private Usable Open Space" is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open



Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. "Group Usable Open Space" is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways.

- 3 For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use.

**Table 3.11-4. Permitted Increase in Noise Levels**

| Permitted Increase (dBA) | Duration (cumulative minutes per hour) |
|--------------------------|--|
| 5                        | 15                                     |
| 10                       | 5                                      |
| 15                       | 1                                      |
| 20                       | Less than 1 minute                     |

Source: City of San Marcos 2017 (Table 20.300-5).

**Table 3.11-5. Permitted Increase in Interior Noise Levels**

| Permitted Increase (dBA) | Duration (cumulative minutes per hour) |
|--------------------------|--|
| 5                        | 1                                      |
| 10                       | Less than 1 minute                     |

Source: City of San Marcos 2017 (Table 20.300-6).

City of San Marcos General Plan

To control transportation related noise sources such as arterial roads, freeways, airports, and railroads, the City of San Marcos has established guidelines for acceptable community noise levels in the Noise Element of the General Plan (City of San Marcos 2012). For noise sensitive rural and single-family residential uses, schools, libraries, parks, and recreational areas the City Noise Element requires an exterior noise level of less than 60 dBA CNEL for outdoor usable area. For multi-family developments the standard is 65 dBA CNEL and a standard of 70 dBA CNEL is typically applied to commercial uses. The City has also established an interior noise limit of 45 dBA CNEL for all residential uses.

The following are applicable goals and policies from the City of San Marcos General Plan, Noise Element (City of San Marcos 2012):

Goal N-1: Promote a pattern of land uses compatible with current and future noise levels.

Policy N-1.1: Address the potential for excessive noise levels when making land use planning decisions in accordance with Table 7-3 Land Use Compatibility Noise Standards.

Policy N-1.2: Ensure that acceptable noise levels are maintained near noise-sensitive uses.

Policy N-1.3: Incorporate design features into residential land use projects that can be used to shield residents from excessive noise. Design features may include, but are not limited to: berms, walls, and sound attenuating architectural design and construction methods.

Policy N-1.4: Require new development projects to provide barriers to reduce noise levels, or provide sufficient spatial buffers to separate excessive noise generating land uses and noise-sensitive land uses.

Policy N-1.5: Require an acoustical study for proposed developments in areas where the existing and projected noise level exceeds or would exceed the Normally Acceptable levels identified in Table 7-3.

Goal N-2: Control transportation-related noise from traffic, rail, and aviation sources near noise sensitive land uses.

Policy N-2.1: Encourage only noise-compatible land uses along existing and future roadways, highways, and freeways.

Policy N-2.2: Promote coordinated site planning and traffic control measures that reduce traffic noise on noise-sensitive land uses.

Policy N-2.3: Advocate the use of alternative transportation modes such as walking, bicycling, mass transit, and non-combustible engine vehicles to reduce traffic noise.

Goal N-3: Control non-transportation-related noise from commercial, industrial, construction, and other sources on noise sensitive land uses.

Policy N-3.1: When adjacent to noise sensitive receptors, require developers and contractors to employ noise reduction techniques during construction and maintenance operations.

Policy N-3.2: Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.

The following are applicable goals and policies from the City of San Marcos General Plan, Safety Element:

Goal S-7: Comply with the McClellan-Palomar Airport Land Use Compatibility Plan.

Policy S-7.1: Record an overflight notification document in association with the approval of any new residential land use within the AIA overflight notification area consistent with the ALUCP.

The project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10.4, Project Impact Analysis, the project would be consistent with the applicable goals and policies.

### 3.11.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to noise are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the project would:

Threshold No. 1: Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Threshold No. 2: Generation of excessive groundborne vibration or groundborne noise levels.

Threshold No. 3: 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 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

In light of the above significance criteria, this analysis uses the following standards to evaluate potential noise and vibration impacts.

- **Construction noise** – The City of San Marcos Municipal Code Chapter 10.24: Noise (San Marcos 2017) addresses construction noise. Noise created as part of the erection and demolition of buildings is exempt if it occurs between 7:00 a.m. and 6:00 p.m. Monday through Friday and on Saturdays from 8:00 a.m. to 5:00 p.m. Because the Municipal Code does not set noise limits on construction activities, but instead limits the hours of operation, adherence to the allowed construction times provided in the City of San Marcos Municipal Code would ensure the construction-related noise levels would not exceed local standards. However, were the City to consider a waiver to allow certain construction activities to occur outside of the aforementioned construction noise exemption period (e.g., from 6:00 p.m. to 7:00 p.m. on weekdays and on weekends from 7:00 a.m. to 8:00 a.m. and 5:00 p.m. to 7:00 p.m.), as allowed by the City’s noise ordinances in cases of urgent necessity or in the interest of public health and safety, then for information purposes this assessment will compare predicted construction noise against the County’s 75 dBA 8-hour  $L_{eq}$  threshold.
- **Off-site project-attributed transportation noise** – For purposes for this analysis, a direct roadway noise impact would be considered significant if increases in roadway traffic noise levels attributed to project development as a result of the proposed project were greater than 3 dBA CNEL at an existing noise-sensitive land use.
- **Off-site project-attributed stationary noise** – For purposes for this analysis, a noise impact would be considered significant if noise from typical operation of HVAC and other electro-mechanical systems associated with development of the proposed project were to cause the noise level at the property line of single-family residential or other existing noise-sensitive land uses to exceed 60 dBA hourly  $L_{eq}$  from 7:00 a.m. to 9:59 p.m., and 50 dBA hourly  $L_{eq}$  from 10:00 p.m. to 6:59 a.m.
- **Construction vibration** – For purposes of this analysis and based on Caltrans’ guidance, a vibration impact would be considered significant if vibration generated by development of the proposed project reached a level of 0.2 ips PPV, as received at a structure, which is the level that would be considered annoying to occupants within (Caltrans 2013). In addition, a vibration level of 0.3 ips PPV represents the threshold for building damage risk.

Further, while the CEQA noise criteria listed above do not consider project consistency with exterior and interior noise standards, such an analysis is relevant to the assessment of the land use and planning impacts of the proposed project. This analysis therefore also evaluates compatibility of on-site traffic noise exposure levels with the City of San Marcos exterior and interior noise standards of 60 dBA CNEL and 45 dBA CNEL, respectively, in this EIR section. For further discussion, refer to Section 3.10 of this EIR.

### 3.11.4 Project Impact Analysis

**Threshold No. 1:** *Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

#### Short-Term Construction Noise

Construction noise and vibration are temporary phenomena. Construction noise and vibration levels vary from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor.

Construction assumptions, including timing, phasing, and equipment type and quantity, as well as worker and vendor truck trips, were based on information provided by the applicant. Default values provided by the California Emissions Estimator Model were used since detailed project site-specific information is not currently available. Equipment that could be used during construction would likely include graders, backhoes, concrete saws, excavators, dump trucks, loaders, cranes, manlifts, cement mixers, pavers, rollers, welders, and air compressors. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3.11-6. Usually, construction equipment operates in alternating cycles of full power and low power, producing average noise levels over time that are less than the listed maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

**Table 3.11-6. Typical Construction Equipment Maximum Noise Levels**

| Equipment Type      | Typical Equipment ( $L_{max}$ , dBA at 50 Feet) |
|---------------------|---|
| Air compressor      | 78  |
| Backhoe             | 78  |
| Concrete pump truck | 81  |
| Grader              | 85  |
| Crane               | 81  |
| Roller              | 80  |
| Manlift             | 75  |
| Generator           | 72  |
| Front End Loader    | 79  |
| Paver               | 77  |
| Scraper             | 84  |
| Welder              | 74  |

**Source:** DOT 2006.

**Note:**  $L_{max}$  = maximum sound level; dBA = A-weighted decibels.

Aggregate noise emission from assumed construction activities, broken down by sequential phase, was predicted at two distances to the nearest existing noise-sensitive receptor: (1) from the nearest position of the project site boundary and (2) from the geographic center of the project site, which serves as the time-averaged location or geographic acoustical centroid of active construction equipment for the phase under study. The intent of the former distance is to help evaluate anticipated construction noise from a limited quantity of equipment or vehicle activity expected to be at the boundary for some period of time, which would be most appropriate for phases such as site preparation, grading, and paving. The latter distance is used in a manner similar to the general assessment technique as described in Federal

Transit Administration guidance for construction noise assessment (FTA 2018), when the location of individual equipment for a given construction phase is uncertain over some extent of (or the entirety of) the construction site area. Because of this uncertainty, all the equipment for a construction phase is assumed to operate—on average—from the geographic center of the project site. Table 3.11-7 summarizes these two distances to the apparent closest noise-sensitive receptor for each of the five sequential construction phases. At the site boundary, this analysis assumes that the equipment may be operating up to all of 8 hours per day (i.e., comparable to a typical on-site work shift).

**Table 3.11-7. Estimated Distances between Construction Activities and the Nearest Noise-Sensitive Receptors**

| Construction Phase (and Equipment Types Involved)                   | Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet) | Distance from Nearest Noise-Sensitive Receptor to Geographic Center of Site (Feet) |
|---|---|--|
| Site Preparation (Backhoe, Dozer)                                   | 150   | 520  |
| Grading (Excavator, Grader, Dozer, Scraper, Backhoe)                | 150   | 520  |
| Building Construction (Crane, Forklift, Backhoe, Welder, Generator) | 150   | 520  |
| Architectural Finishes (Air Compressor)                             | 150   | 520  |
| Paving (Roller, Paver, Mixer Truck)                                 | 150   | 520  |

Source: Appendix I.

A noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. The model considered the equipment type and number of each piece of equipment (e.g., two graders, a loader, a tractor), its duty cycle based on default values (i.e., percentage of time when the equipment is expected to operate at full power or capacity, and thus make noise at a level comparable to what is presented in Table 3.11-6), and the distance to the noise-sensitive receiver. The model also considers hours that equipment may be on site and operating (or idling). No topographical or structural shielding was assumed. The results of the construction noise modeling are presented in Table 3.11-8.

**Table 3.11-8. Predicted Construction Noise Levels per Activity Phase**

| Construction Phase (and Equipment Types Involved)                   | 8-Hour $L_{eq}$ at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA) | 8-Hour $L_{eq}$ at Nearest Noise-Sensitive Receptor to Geographic Center of Site (dBA) |
|---|---|--|
| Site Preparation (Backhoe, Dozer)                                   | 70.5  | 59.7   |
| Grading (Excavator, Grader, Dozer, Scraper, Backhoe)                | 70.5  | 59.7   |
| Building Construction (Crane, Forklift, Backhoe, Welder, Generator) | 71.2  | 60.4   |
| Architectural Finishes (Air Compressor)                             | 63.2  | 52.1   |
| Paving (Roller, Paver, Mixer Truck)                                 | 72.3  | 61.5   |

Source: Appendix I.

Notes:  $L_{eq}$  = equivalent noise level; dBA = A-weighted decibels.

Compared to measurements of the daytime outdoor ambient sound level at representative sample locations, the increase in noise levels could be substantial and clearly perceptible to an average listener having healthy human hearing. Increased noise levels would typically be relatively short term and temporary—lasting only as long as construction occurs during allowable hours.

As discussed above, the City of San Marcos Municipal Code Chapter 10.24: Noise (San Marcos 2017) addresses provides that noise created as part of the erection and demolition of buildings is exempt from standards if it occurs between 7:00 a.m. and 6:00 p.m. Monday through Friday and on Saturdays from 8:00 a.m. to 5:00 p.m. Adherence to the allowed construction times would mean construction-related noise levels would not exceed local standards. Because it is anticipated that construction activities would take place within the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and on Saturdays from 8:00 a.m. to 5:00 p.m., in compliance with the City’s Municipal Code, construction noise impacts would be considered less than significant.

However, if the project proposes to seek a waiver to allow certain construction activities to occur outside of the aforementioned construction noise exemption period (e.g., from 6:00 p.m. to 7:00 p.m. on weekdays and on weekends from 7:00 a.m. to 8:00 a.m. and 5:00 p.m. to 7:00 p.m.), as allowed by the City’s noise ordinances in cases of urgent necessity or in the interest of public health and safety, then impacts would nevertheless be less than significant because, as presented in Table 3.11-8, the estimated construction noise levels are predicted to be less than 75 dBA  $L_{eq}$  over an 8-hour period. Note that the estimated noise levels at a distance of 150 feet from the project site assume a worst-case scenario that various pieces of heavy equipment would each operate for a cumulative period of 8 hours a day at the location nearest the identified sensitive receptors. Hence, even if construction activity were to be permitted outside the City’s allowable construction noise exemption period (as allowed by the noise ordinance), construction noise impacts would be less than significant.

## Long-Term Operational Noise

### Roadway Traffic Noise

Implementation of the proposed project would generate additional vehicle trips on local arterial roadways (i.e., South Las Posas Road, La Mirada Drive, Linda Vista Drive, and South Pacific Street), which could result in increased traffic noise levels at adjacent off-site existing noise-sensitive land uses. Appendix I to this EIR contains a spreadsheet with traffic volume data (average daily traffic) for surrounding arterial roadways. Implementation of the proposed project is estimated to add 2,694 average daily trips to the segments along South Las Posas road, La Mirada Drive, and Pacific Street.

Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration’s Traffic Noise Model version 2.5 (FHWA 2004). Information used in the model included the roadway geometry, posted traffic speeds, and traffic volumes. Noise levels were modeled at representative noise-sensitive receivers ST1–ST4, as shown in Figure 3 of Appendix I, and modeled to be 5 feet above the local ground elevation. The traffic noise prediction model results for the existing (year 2021), existing plus project, near-term (2025), near-term plus project, horizon year (2050) and horizon year plus project scenarios at these four locations are summarized in Table 3.11-9.

As discussed above, a significant impact from transportation noise would occur if the proposed project would cause an increase of 3 dB or more above existing noise levels. An increase or decrease in noise level of at least 3 dB is required before any noticeable change in community response would be expected (Caltrans 2013).

**Table 3.11-9. Roadway Traffic Noise Modeling Results**

| Modeled Receiver # Description | Existing (2021) Noise Level (dBA CNEL) | Existing (2021) Plus Project Noise Level (dBA CNEL) | Near-term (2025) Noise level (dBA CNEL) | Near-term (2025) Plus Project Noise level (dBA CNEL) | Horizon year (2050) Noise Level (dBA CNEL) | Horizon year (2050) plus Project Noise Level (dBA CNEL) | Maximum Project-Related Noise Level Increase (dB) |
|--------------------------------|--|---|---|--|--|---|---|
| ST1                            | 67.7                                   | 68.1  | 67.8                                    | 68.2   | 68.6                                       | 69  | 0.4   |
| ST2                            | 61.2                                   | 63.6  | 61.2                                    | 63.6   | 61.6                                       | 63.9  | 2.4   |
| ST3                            | 61.7                                   | 62.1  | 62.4                                    | 62.6   | 63.9                                       | 64.1  | 0.4   |
| ST4                            | 66.2                                   | 66.3  | 66.3                                    | 66.5   | 67   | 67  | 0.2   |

Source: Appendix I.

Notes: dBA = A-weighted decibel; CNEL = Community Noise Equivalent Level; dB = decibel; ST = short-term.

Table 3.11-9 shows that at all four listed representative receivers, the addition of traffic to the roadway network as a result of the proposed project would result in a CNEL increase of less than 3 dB, which is below the discernible level of change for the average healthy human ear. Therefore, a less than significant impact would occur related to operational traffic noise.

### Traffic Noise Exposure to Project Occupants

While not relevant to the CEQA noise thresholds of significance, the City’s General Plan and the California Building Code require that interior noise levels within habitable rooms of new residential development not exceed a CNEL of 45 dBA CNEL. Accordingly, for purposes of evaluating the proposed project’s consistency with the General Plan policies and applicable regulations (refer to EIR Section 3.10), the following analysis is provided of traffic noise and interior and exterior noise levels anticipated at project residences.

The ambient noise levels depicted on Table 3.11-9 were used to predict the existing-plus-project scenario traffic noise levels at multiple on-site exterior areas. Exterior sound levels presented in Table 3.11-9 that are higher than 65 dBA CNEL indicate potential locations where an exterior-to-interior noise analysis should be performed for the approximate occupied residential unit on the project site.

The results from Table 3.11-9 indicate that ambient traffic noise levels could reach as high as 67.7 dBA CNEL in acoustically equivalent locations to ST1 along South Las Posas Road. With the 45 dBA CNEL interior background sound level limit, this means the minimum composite sound transmission class (STC) rating for the exterior shell separating the habitable interior space from the outdoor sound level must be at least 22. The composite STC rating for the portion of a building shell that separates an interior space from the outdoors is calculated from the area-dependent contributions of its elements: windows, wall assemblies, and doors.

Proposed residential units would include balconies as part of the design, for which access would likely be provided by single-panel, out-swing fiberglass French doors (comparable to a Milgard Essence series model or similar from another manufacturer) or alternately sliding-type doors. For purposes of this analysis, either of these patio/balcony door design styles are assumed to feature a dual-pane glazing system similar to a standard residential window assembly (i.e., two 1/8-inch-thick glass panes separated by a 3/8-inch-wide airgap) in narrow-perimeter frames

compatible with modern thermal insulation (and thus energy conserving) design. The analysis also assumes that these door products feature good seals and related hardware, so that when closed, the effective sound insulating performance is represented by the glass. Viracon data indicates that such glazing should demonstrate an STC rating of 31 (Appendix I).

This study further assumes an exterior wall assembly that includes and is typical of modern residential building construction: one layer of 5/8-inch gypsum wallboard on the interior-facing side, 2-inch × 4-inch wood studs, glass fiber batt insulation in the stud cavities, and a dual-layer of 5/8-inch gypsum wallboard on the exterior-facing side. Acoustical transmission loss data is available on this representative assembly (Halliwell et. al. 1998) and is used as part of estimating the composite STC ratings reported herein. For purposes of this analysis, the dual-layer gypsum wallboard on the exterior surface approximates the mass and solidity of what may be other approved material options as determined by the Project architect, such as cement fiber siding panels, brick masonry veneer, or cement plaster attached to layers of fiberglass mat sheathing and plywood sheathing.

Table 3.11-10 summarizes the calculated net STC ratings for a set of hypothetical occupied room Details of these calculations that account for the façade surface area and its composite areas of exterior wall assembly and windows are provided in Appendix I. As shown, all facades are anticipated to exhibit a predicted STC rating of at least 36, and thus would provide sufficient exterior-to-interior sound insulation from outdoor traffic noise to yield interior background sound levels that are less than 45 dBA CNEL, compliant with the City and state standards. The highest predicted traffic noise level was 67 dBA CNEL such that interior noise would be reduced to around 31 dBA CNEL (less than 45 dBA) using common and required facades and surfaces (e.g.,  $67 - 36 = 31$  dBA CNEL, which is less than 45). Project development will require that habitable rooms feature mechanical ventilation or an air-conditioning system to provide interior comfort of the occupants when all windows and doors are closed. Refer to Appendix I. Therefore, new development on site would meet the City’s and California Building Code’s requirement to reduce interior ambient noise levels to 45 dB CNEL within habitable rooms of new residential development. The proposed project would thus not conflict with this City regulation and General Plan policy for purposes of evaluating the project’s land use/planning impacts, which would be less than significant. Refer to Section 3.10 for further discussion of General Plan consistency.

**Table 3.11-10. Predicted Net Sound Transmission Class of Occupied Room Façade**

| Occupied Room Façade                         | Predicted Net Sound Transmission Class (STC) for Scenario |                                      |
|--|---|--------------------------------------|
|  | Closed Window(s) and Door*                                | Open Window(s) & Closed French Door* |
| 1st floor Bedroom, eastern facade            | 37  | 8                                    |
| 2nd floor Bedroom w/ balcony, eastern façade | 36  | 11                                   |
| 3rd floor Bedroom, eastern façade            | 38  | 11                                   |

Source: Appendix I.

Note: n/a = not applicable.

\* Doors are only modeled for scenarios that contain the balcony door.

### Stationary Operational Noise

The proposed project would add a variety of noise-producing mechanical equipment and other stationary sources, including facility unit heating, ventilation, and air conditioning equipment.



According to the site plan development would likely include cooling by rooftop-mounted air-cooled condensing [ACC] units. The nearest sensitive receptor located 150 feet west of the project's northwestern corner could be exposed to noise from ACC units. It is predicted a residential project would require approximately 20 ACC units with a cooling load of up to 40 tons of refrigeration (assuming each residential unit would need approximately 2 tons of refrigeration based on industry data) (Loren Cook Company 2015). Each ACC unit would have an SPL of 68 dBA at 3 feet based on available data from a likely manufacturer (Carrier 2012) and could serve approximately 20 residential units based on industry data that provides each residence needs 2 tons of refrigeration, and each ACC unit provides 40 tons of refrigeration.

Assuming development would occur proximate to the closest existing off-site noise-sensitive residential receptor to the northwest of the project site, and assuming operation of 20 ACC units in this area, the sound would be lower than 41 dBA  $L_{eq}$  at said sensitive receptor. Noise levels associated with ACC units would therefore be compliant with the City's 60 dBA  $L_{eq}$  daytime and 50 dBA hourly  $L_{eq}$  nighttime threshold. Further, the addition of this noise to existing noise levels, which already exceed 60 dBA  $L_{eq}$  during the daytime and 50 dBA  $L_{eq}$  at night, would be minimal and well below the barely perceptible 3-decibel threshold (e.g., the logarithmic sum of 41 dBA and 50 dBA equals 50.5 dBA, an increase of 0.5 dBA, and the logarithmic sum 41 dBA and 60 dBA equals 60.1 dBA, an increase of 0.1 dBA). Impacts from project stationary noise would be less than significant impact.

***Threshold No. 2: Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?***

Construction activities may expose persons to excessive groundborne vibration or groundborne noise. On-site construction that would cause the most groundborne vibration and noise is associated with equipment used for grading, and specifically large bulldozers for earthmoving. As discussed above, Caltrans has collected groundborne vibration information related to construction activities (Caltrans 2020) and concluded that continuous vibrations with a PPV of approximately 0.1 ips could be considered annoying on the basis of it being "strongly perceptible" by building occupants. Heavier pieces of construction equipment, such as a bulldozer that may be expected to be used during construction on the project site, have peak particle velocities of approximately 0.089 ips PPV or less at a reference distance of 25 feet (FTA 2018).

Groundborne vibration also attenuates rapidly, even over short distances as it propagates from source to receptor through intervening soils and rock strata. By way of example, for a bulldozer operating on site and as close to the northern project boundary as possible (i.e., 150 feet from the nearest occupied property/ vibration sensitive receptor) the estimated vibration velocity level would be 0.006 ips per the equation as follows (FTA 2018):

$$PPV_{rcvr} = PPV_{ref} * (25/D)^{1.5} = 0.006 = 0.089 * (25/150)^{1.5}$$

In the above equation,  $PPV_{rcvr}$  is the predicted vibration velocity at the receiver position,  $PPV_{ref}$  is the reference value at 25 feet from the vibration source (the bulldozer), and D is the actual horizontal distance to the receiver. Therefore, at this predicted PPV, the impact of vibration-induced annoyance to occupants of nearby existing homes would be less than 0.1 ips PPV and therefore less than significant. Equipment operating at a greater distance would be anticipated to have even less of an effect.

Construction vibration, at sufficiently high levels, can also present a building damage risk. However, anticipated construction vibration associated with the project would yield levels of 0.006 ips, which would not surpass the guidance limit of 0.2 to 0.3 ips PPV for preventing damage to residential structures (Caltrans 2020). Because the

predicted vibration level at 150 feet is less than this guidance limit, the risk of vibration damage to nearby structures is considered less than significant.

No operational components of the proposed project use would include significant groundborne noise or vibration. Thus, no significant groundborne noise or vibration impacts would occur with operation of the project, and impacts would be less than significant.

***Threshold No. 3: 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 2 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?***

There are no private airstrips within the vicinity of the project site. The closest airport to the project site is the McClellan Palomar Airport located approximately 4.4 miles west of the site. The project site is not located within the boundaries of the land use plan adopted for this airport. No impact would occur.

### 3.11.5 Mitigation Measures

As analyzed in Section 3.11.4, Project Impact Analysis, potential noise impacts during construction and operation of the project would be less than significant. No mitigation is required with proper implementation of the recommended design features.

### 3.11.6 Conclusion

As discussed above, potential noise impacts during construction would be less than significant with implementation of recommended design features. Noise impacts due to operation of the proposed project (including traffic noise) would be less than significant and no further mitigation is required. Further, the proposed project would comply with the General Plan's 45 dBA interior noise standard. Therefore, project impacts related to noise would be less than significant.

## 3.12 Population and Housing

This section describes the existing setting of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, and evaluates potential impacts related to population and housing resulting from the proposed project. This section considers population and housing characteristics in the area and discusses project consistency with regional growth projections.

Table 3.12-1 provides a summary of the project- and cumulative-level population and housing impacts by threshold.

**Table 3.12-1. Population and Housing Summary of Impacts**

| Threshold of Significance  | Project Direct Impact | Project Cumulative Impact | Significance Determination |
|--|-----------------------|---------------------------|----------------------------|
| No. 1 - Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). | Less than Significant | Less than Significant     | Less than Significant      |
| No. 2 - Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.   | No Impact             | Less than Significant     | No Impact                  |

### 3.12.1 Existing Conditions

This section provides background information regarding population and housing forecasts for the City of San Marcos based upon demographic information from the San Diego Association of Governments (SANDAG), and the City’s Housing Element (2013–2021). The City released a Public Review Draft of the 2021–2029 Housing Element Update in March 2021. Although still in draft form at the time this environmental impact report (EIR) was prepared, information from the Draft 2021–2029 Housing Element Update is referenced throughout this EIR Chapter.

Currently, the project site is undeveloped, and does not support residential uses as it is zoned for Industrial land use.

#### Population

According to the City of San Marcos General Plan Housing Element, San Marcos has been one of the fastest growing cities in the San Diego region since the 1980s (City of San Marcos 2013). The City doubled its population both in the 1980s and again between 1990 and 2010. For perspective, the San Diego Region grew by 34% during the period from 1980 to 1990 and the City of San Marcos grew by 123% during this same timeframe. Further, from 2000 to 2010, regional growth was 10% while City growth was 52% (City of San Marcos 2013). As of 2020, the City of San Marcos has an estimated population of 97,209 (DOF 2020). Based on growth projections provided by the Series 13: 2050 Regional Growth Forecast prepared by SANDAG, it is estimated that the City’s population growth will reach 109,095 persons by 2035, and 113,015 persons by 2050 (SANDAG 2013a).

The City’s growth has outpaced Countywide growth, and the City’s population is anticipated to increase upon buildout of lands within the City limits, particularly in areas around transit facilities and near California State University San Marcos.

## Housing

As of 2020, the City of San Marcos had 32,460 housing units. The housing stock is comprised of approximately 58.42% single-family detached and attached units, and approximately 31.32% multifamily units (DOF 2020). Approximately 10.26% of the housing stock as of 2020 consisted of mobile homes (DOF 2020). Based on the Series 13: 2050 Regional Growth Forecast, the City is expected to have 35,795 housing units by 2035, and 37,337 housing units by 2050 (SANDAG 2013a). According to the City's Housing Element (2013–2021), between 2010 and 2035 the City of San Marcos is expected to see an increase of 16.7% in housing stock. In comparison, the region is expected to grow by 22% between 2010 and 2035.

The City's Housing Element identifies overcrowding and overpayment (cost burden) as two housing problems within the City (City of San Marcos 2013). Overcrowded households are usually a reflection of the lack of affordable housing available. Households that cannot afford housing units suitably sized for their families are often forced to live in housing that is too small for their needs, which may result in poor physical condition of the dwelling unit. In 2019, 1,959 housing units (6.6% of the total occupied units) were overcrowded, which represents 2.6% of owner units and 13.2% of renter units (City of San Marcos 2021). The average household size in the City was 3.17 persons in 2019, which is a slight increase from the average household size of 3.05 persons in 2010. The average household size was higher for renters (3.37 persons) than it was for owner households (3.05 persons) (City of San Marcos 2021).

Home sales in the City have generally trended upward over the past 5 years. With median housing prices in the City rising from approximately \$500,000 in 2015 to a high of \$725,000 in March 2019 (City of San Marcos 2021). According to the 2015–2019 U.S. Census American Community Survey data, the median rent in the City was \$1,704 per month in 2019, and very few rentals were available in December 2019. Rents ranged from \$1,449 for one-bedroom homes to \$2,419 to \$3,067 for four-bedroom-or-more homes (City of San Marcos 2021). As with most communities, the location of the home is one of the biggest factors regarding price. Compared to the rest of the state, housing in San Marcos is still relatively affordable. However, housing is not affordable for all income levels, particularly the very low- and low-income households, and many households in the City end up spending more than 30% of their income on housing, leading to overpayment (City of San Marcos 2021).

Actual or potential constraints to the provision of housing affect the development of new housing and the maintenance of existing units for all income levels. Governmental and non-governmental constraints in the City are similar to those in other jurisdictions in the region. One of the most significant and difficult constraints to housing in the City and elsewhere in the San Diego region is the high cost of land (City of San Marcos 2013).

A Regional Housing Needs Plan is mandated by the State of California (Government Code, Section 65584) for regions to address housing issues and needs based on future growth projections for the area. The Regional Housing Needs Plan for San Diego County is developed by SANDAG and allocates a "fair share" of regional housing needs to individual cities and unincorporated county. The intent of the Regional Housing Needs Plan is to ensure that local jurisdictions address not only the needs of their immediate areas but also that needs for the entire region are fairly distributed to all communities. A major goal of the Regional Housing Needs Plan is to assure that every community provides an opportunity for a mix of affordable housing to all economic segments of its population. The City's Public Review Draft 2021–2029 Housing Element addresses SANDAG's Regional Housing Need Allocation (RHNA) schedule for the 6th Cycle, from 2021 through 2029. In July 2018, the California Department of Housing and Community Development, in consultation with SANDAG, determined that the San Diego region must plan for 171,685 housing units between 2021 and 2029. The housing units are divided into four income categories. The City will need to plan to accommodate 3,116 new units, which includes 364 extremely low-, 364 very low-, 530 low-,

542 moderate-, and 1,316 above moderate-income units. Since June 30, 2020, 7 extremely very low/low-, 5 low-, 489 moderate-, and 45 above moderate-income units have been constructed, are under construction, or have been issued permits. The City also has several projects that are approved/entitled; this category of units represents an additional 81 extremely low/very low-income units, 50 low-income units, 409 moderate-income units, and 499 above moderate-income units. Between units that have been constructed, under construction or issued permits since June 30, 2020 and those units that are approved, entitled, or in process, the City of San Marcos has exceeded its Cycle 6th RHNA for the moderate-income category, and as such, the remaining units that must be accommodated for the 6th Cycle are only those left to be affordable for extremely low/very low-, low-, and above moderate-income households (City of San Marcos 2021).

### 3.12.2 Regulatory Setting

This section describes the local regulatory setting as it relates to population and housing for the proposed project.

#### State

##### California Planning and Zoning Law

The legal framework within which California counties and cities exercise local planning and land use functions is provided in the California Planning and Zoning Law (Sections 65000 through 66499.58 of the California Government Code). Under that law, each county and city must adopt a comprehensive, long-term general plan. The law gives counties and cities wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. The requirements include seven mandatory elements described in the Government Code. Each element must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and implementation measures.

Once the general plan of a county or city is adopted, it should be construed as a dynamic document, for which adaptability is a key component. Each jurisdiction frequently reviews its general plan for consistency and to ensure it addresses growth-related issues in a comprehensive manner. State law allows up to four general plan amendments per general plan element per year, so each jurisdiction can make changes as justified.

##### California Building Standards Code

In 2001, California consolidated the Uniform Building, Plumbing, Electrical, and Mechanical codes into the California Building Standards Code, which is contained in Title 24 of the California Code of Regulations. The California Building Standards Code contains 11 parts: Electrical Code, Plumbing Code, Administrative Code, Mechanical Code, Energy Code, Residential Building Code, Historical Building Code, Fire Code, Existing Building Code, Green Building Standards Code, and the Reference Standards Code. These codes promote public health and safety and ensure that safe and decent housing is constructed in the County's unincorporated areas.

##### Senate Bill 375

Senate Bill 375 (codified in the Government Code and Public Resources Code) took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the greenhouse gas reduction goals established in Assembly Bill 32. Senate Bill 375 requires metropolitan planning organizations to incorporate a Sustainable Communities Strategy (SCS) in their Regional

Transportation Plans (RTPs) that will achieve greenhouse gas emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

### Regional Housing Needs Assessment

As discussed above, an RHNA is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods.

Communities use the RHNA in land use planning, prioritizing local resource allocation, and in deciding how to address identified existing and future housing needs resulting from population, employment, and household growth. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address social equity, and fair share housing needs.

### Local

#### San Diego Association of Governments

SANDAG is a public agency, composed of 18 cities and the County of San Diego, that builds strategic plans guiding the San Diego region in land use, growth, economics, and the environment. SANDAG also provides population and housing estimates for the region, which are based, in part, on local jurisdictional planning data and inform regional planning.

The SANDAG Regional Comprehensive Plan, adopted in 2004, provides a long-term planning framework for the San Diego region (SANDAG 2004). The Regional Comprehensive Plan identified smart growth and sustainable development as important strategies to direct the region's future growth toward compact, mixed-use development in urbanized communities that already have existing and planned infrastructure, and then connecting those communities with a variety of transportation choices.

In 2011, SANDAG approved the 2050 RTP/SCS (SANDAG 2011). This approval marked the first time SANDAG's RTP included a sustainable communities strategy, consistent with the Sustainable Communities and Climate Protection Act of 2008, also known as Senate Bill 375. This RTP/SCS provided a blueprint to improve mobility, preserve open space, and create communities, all with transportation choices to reduce greenhouse gas emissions and meet specific targets set by the California Air Resources Board as required by the 2008 Sustainable Communities and Climate Protection Act. In 2010, California Air Resources Board established targets for each region in California governed by a metropolitan planning organization. SANDAG is the metropolitan planning organization for the San Diego region.

The SANDAG target, as set by California Air Resources Board, is to reduce the region's per capita emissions of greenhouse gas emissions from cars and light-duty trucks by 7% by 2020, compared with a 2005 baseline. By 2035, the target is a 13% per capita reduction. There is no target set beyond 2035. To achieve the 2020 and 2035 targets, SANDAG and other metropolitan planning organizations are required to develop an SCS as an element of its RTP. The SANDAG SCS integrates land use and transportation plans to achieve reductions in greenhouse gas emissions and meet the California Air Resources Board-required targets.

### San Diego Forward: The Regional Plan

The San Diego Association of Governments' (SANDAG) *San Diego Forward: The Regional Plan* (Regional Plan) combines the region's two most important existing planning documents—the Regional Comprehensive Plan and the RTP/SCS. The Regional Comprehensive Plan, adopted in 2004, laid out key principles for managing the region's growth while preserving natural resources and limiting urban sprawl. The plan covered eight policy areas, including urban form, transportation, housing, healthy environment, economic prosperity, public facilities, our borders, and social equity. These policy areas were addressed in the 2050 RTP/SCS and are now fully integrated into the Regional Plan.

The SANDAG Board of Directors adopted the 2021 Regional Plan on December 10, 2021. The 2021 Regional Plan is a 30-year plan that considers growth, movement, and residential location around the region. The 2021 Regional Plan combines the RTP, SCS, and Regional Comprehensive Plan. As such, the 2021 Regional Plan must comply with specific state and federal mandates. These include an SCS, per California Senate Bill 375, that achieves greenhouse gas emissions reduction targets set by the California Air Resources Board, compliance with federal civil rights requirements (Title VI); environmental justice considerations; air quality conformity; and public participation (SANDAG 2021).

### Regional Growth Forecast

SANDAG estimates future population, housing, land use, and economic growth throughout San Diego County and its comprising cities, including the City of San Marcos. On October 13, 2013 (SANDAG 2013b), SANDAG accepted the Series 13: 2050 Regional Growth Forecast. This forecast serves as the foundation for San Diego Forward: The Regional Plan and other planning documents across the region. SANDAG growth projections for the region and for the City of San Marcos are outlined in Table 3.12-2. The City of San Marcos is expected to experience a higher growth rate for population, housing, and employment when compared to the entire region of San Diego. It should also be noted that the 2050 Regional Growth Forecast is not intended to be an exact formula utilized to determine growth in the region and comprising jurisdictions; rather, it should be utilized as a starting point for regional planning.

**Table 3.12-2. Forecasted Growth for the San Diego Region and the City of San Marcos**

| Jurisdiction       | Year      |           |           |           | Change 2012–2050 |         |
|--------------------|-----------|-----------|-----------|-----------|------------------|---------|
|                    | 2012      | 2020      | 2035      | 2050      | Numeric          | Percent |
| <b>Population</b>  |           |           |           |           |                  |         |
| San Diego Regional | 3,143,429 | 3,435,713 | 3,853,698 | 4,068,759 | 925,330          | 29      |
| City of San Marcos | 85,560    | 98,915    | 109,095   | 113,015   | 27,455           | 32      |
| <b>Housing</b>     |           |           |           |           |                  |         |
| San Diego Regional | 1,165,818 | 1,249,684 | 1,394,783 | 1,491,935 | 326,117          | 28      |
| City of San Marcos | 28,539    | 32,625    | 35,795    | 37,337    | 8,798            | 31      |
| <b>Employment</b>  |           |           |           |           |                  |         |
| San Diego Regional | 1,450,913 | 1,624,124 | 1,769,938 | 1,911,405 | 460,492          | 32      |
| City of San Marcos | 37,608    | 45,783    | 54,902    | 64,328    | 26,720           | 71      |

Source: SANDAG 2013a, 2013b.

### Regional Housing Needs Assessment

The Regional Housing Needs Assessment 6th Housing Element Cycle, 2021–2029, was approved on July 10, 2020 (SANDAG 2020). Based on a methodology that weighs a number of factors (i.e., projected population growth, employment, commute patterns, and available sites), SANDAG determined quantifiable needs for housing units in the region according to various income categories. In its final Regional Housing Needs Assessment figures, SANDAG allocated 3,116 housing units to the San Marcos area for the 2021–2029 Housing Element Cycle, including 1,258 housing units for very low- and low-income households (SANDAG 2020).

### City of San Marcos General Plan

The City's Housing Element identifies goals and associated policies to provide a basis for housing and growth projections in the City for the 2013–2021 planning period. The following goals and policies from the Housing Element of the City of San Marcos General Plan pertain to population and housing (City of San Marcos 2013):

Goal H-1: Provide a broad range of housing opportunities with emphasis on providing housing which meets the special needs of the community.

Policy 1.1: Designate land for a variety of residential densities sufficient to meet the housing needs for a variety of household sizes and income levels, with higher densities being focused in the vicinity of transit stops and in proximity to significant concentrations of employment opportunities.

Goal H-2: Protect, encourage, and provide housing opportunities for persons of lower and moderate incomes.

Goal H-4: Reduce or remove governmental constraints to the development, improvement, and maintenance of housing where feasible and legally permissible.

Policy 4.4: Balance the need to protect and preserve the natural environment with the need to provide housing and employment opportunities.

At the time of adoption of the City's Housing Element (April 2013), the City had achieved approximately one-third of its RHNA from the 5th cycle (or approximately 1,731 units) with housing units constructed, under construction, or approved, fulfilling its allocation of moderate-income units. Based on a sites inventory assessment, the City has the ability to adequately accommodate the remaining RHNA requirements within land that currently permits residential development (composed of proposed applications, vacant residential sites, and vacant land in Specific Plan Areas). The project site is not identified within the City's Housing Element as a site that could contribute to the RHNA allocation (City of San Marcos 2013). It should be noted that the City's Housing Element covers the planning period of April 30, 2013, through April 30, 2021, which differs from the RHNA planning period identified above.

The City released a Public Review Draft of the 2021–2029 Housing Element update on March 12, 2021. The Public Review Draft Housing Element is concurrently being reviewed by the California Department of Housing and Community Development who will be providing feedback to the City to ensure the Housing Element update is in full compliance with State law prior to its adoption. This Housing Element update recommends only minor modifications to the City's current (2013–2021) Housing Element Goals and Policies, and no land use changes are proposed as part of the 2021–2029 Housing Element update to accommodate the RHNA (City of San Marcos 2021). For the purpose of this EIR, project compliance with the current (2013–2021) Housing Element goals and policies is analyzed, as the 2021–2029 Housing Element is not yet adopted.



The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning, of this EIR. As detailed in Section 3.10.4, the project is consistent with the applicable goals and policies pertaining to population and housing.

### 3.12.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to population and housing are based on Appendix G of the California Environmental Quality Act Guidelines. According to Appendix G of the California Environmental Quality Act Guidelines, a significant impact would occur if the project would:

Threshold No. 1: 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).

Threshold No. 2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

### 3.12.4 Project Impact Analysis

***Threshold No. 1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

As described in Chapter 2, the proposed project consists of development of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.09 acres within the approximately 33.2-acre project site. Proposed residential units would include a mix of apartments within a five-story podium building, three-story rowhomes, three-story villas, and affordable flats within a four-story building. Of the 449 total units, 68 (15% of the total) would be designated as deed-restricted affordable units. The project would also include a total of 927 parking spaces, and 134,985 square feet of common open space area. The remaining 17.94 acres of the approximately 33.2-acre project site would be preserved and restored open space and habitat area. The proposed project would have a density of approximately 29.8 dwelling units per acre not including the proposed open space and habitat area. With the open space and habitat area included, the density of the proposed project would be approximately 13.5 dwelling units per acre.

The project proposes a General Plan Amendment, Rezone, Specific Plan, Tentative Map, and Multifamily Site Development Plan. The General Plan Amendment and Rezone would change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area (SPA). The Specific Plan has been prepared with the intent to provide a comprehensive plan to ensure the efficient development of a new residential community. The Specific Plan serves as both a policy document and a regulatory document for the systematic implementation of the policies and goals of the General Plan (the Specific Plan is included as Appendix M to this EIR). The Tentative Map presents specific lot configurations for the site. The Multifamily Site Development Plan will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.

As of 2020, the City of San Marcos has a person per household ratio of 3.09 (DOF 2020). Using this household ratio of 3.09, development of 449 residential dwelling units at the project site would generate approximately 1,388 people. Although not all residents of the development would be new to the City of San Marcos, residential

development on the project site would still result in unplanned growth for the City, as a residential land use for the project site was not accounted for in the City's General Plan since the project site is zoned for Industrial use.

Development of the project is unlikely to directly induce further population growth in the area. This is because the area surrounding the project site is already developed. Further, because the proposed project site is in an infill area with existing roads and utilities, no indirect impacts associated with the extension or construction of roads or expansion of public utilities are expected to occur as a result of the proposed project.

As discussed above, the City of San Marcos is forecasted to grow from 98,915 persons in 2020 to 109,095 persons in 2035, which is a population increase of 10,180 (SANDAG 2013a). Additionally, SANDAG allocated 3,116 housing units to the San Marcos area for the 2021–2029 Housing Element Cycle (SANDAG 2020). Approval of the proposed project could help the City accommodate the substantial population growth projected to occur within the City and the need for housing.

The proposed project would be subject to compliance with the City's General Plan Housing Element goals and policies, compliance with housing-related ordinances in the City's Municipal Code, and would be subject to applicable development fees, as outlined below.

The City's Growth Management Ordinance (Chapter 20.315 of the Municipal Code) was adopted to implement the General Plan and to manage the projected growth of residential, industrial, and commercial development. The ordinance requires that all new development bear the cost of providing the public facilities and services needed to effectively serve the new development. The Growth Management Ordinance does not limit density of development or cap the number of residential building permits that can be issued within the planning period. To the contrary, the ordinance will ensure that public facilities and services are, or will be, provided to serve future residential development anticipated by the RHNA.

The City's Inclusionary Housing Ordinance, established in May 2000, requires housing developers of one or more units to contribute to housing for extremely low, very low-, low-, and moderate-income households as defined by the U.S. Department of Housing and Urban Development. Developers of for-sale single-family projects and rental projects of six or fewer units may pay an in-lieu fee in accordance with Section 20.310.050 of the Municipal Code. In-lieu fees are deposited into an interest-accruing account to provide housing opportunities for target households. The City has the discretion to accept an irrevocable dedication of land or other non-monetary contribution that is not less in value than the otherwise required in-lieu fee if the non-monetary alternative furthers the goals and policies of the Housing Element.

The City of San Marcos charges fees to process plans submitted for residential projects and to finance the provision of important services that are needed to accommodate housing and population growth. Fees and exactions are used to finance public facilities, roadways, water and sewer infrastructure, schools, and other community services. Nearly all of these fees are assessed through a pro rata share system, based on the magnitude of the project's impact or the extent of the benefit that will be derived. The City's fees have not been found to act as a constraint to the development of housing in San Marcos. For new residential projects, developers in San Marcos may be required to pay one or more of the following fees depending on the location, type, and size of the project: Planning, Building and Environmental Fees; City Impact Fees; and Regional Impact Fees (City of San Marcos 2013).

In summary, implementation of the project would change the site's land use designation and zoning from Industrial to Specific Plan Area in a manner that would accommodate development of 449 residential units and generation of approximately 1,388 people, not previously accounted for by the City. However, because the project area is

already developed, the proposed project would not serve to induce substantial unplanned population growth in the vicinity of the site. Further, because the proposed project site is in an infill area with existing roads and utilities, no indirect impacts associated with the extension or construction of roads or expansion of public utilities are expected to occur as a result of the proposed project. City requirements for funding and pre-planning for implementation of housing projects would also ensure that proposed project growth is adequately planned for prior to development. As the proposed project would be required to comply with City regulations and applicable fees outlined above, impacts associated with the proposed project are determined to be less than significant.

***Threshold No. 2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

The project site is currently vacant and undeveloped. Implementation of the proposed project would not displace any existing housing or people or necessitate the construction of replacement housing elsewhere. Therefore, there would be no impact.

### 3.12.5 Mitigation Measures

No significant impacts are identified; therefore, no mitigation measures are required.

### 3.12.6 Conclusion

Although the proposed project would introduce a residential land use and an increase in population at the project site not previously accounted for by the City; because the project area is already developed, the proposed project would not serve to induce substantial unplanned population growth in the vicinity of the site. Further, because the proposed project site is in an infill area with existing roads and utilities, no indirect impacts associated with the extension or construction of roads or expansion of public utilities are expected to occur as a result of the proposed project. As analyzed in Section 3.12.4, approval of the proposed project could help the City accommodate the substantial population growth projected to occur within the City and the need for housing.

City requirements for funding and pre-planning for implementation of housing projects would also ensure that proposed project growth is adequately planned for prior to development. The project would be required to comply with goals and policies outlined in the City's Housing Element and applicable City regulations and applicable fees as outlined above. Approval of the proposed GPA/Rezone of the project site from Industrial to Specific Plan Area, and compliance with applicable City regulations would ensure project impacts related to the increase in population and housing would be less than significant.

Since the project site is located on undeveloped land, implementation of the proposed project would not displace any existing housing or people in a manner that would necessitate the construction of replacement housing elsewhere. Therefore, there would be no impact.

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## 3.13 Public Services

This section describes the existing setting of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to public services, including fire protection services, police protection services, schools, parks, and libraries. This section incorporates information from the Fire Protection Plan prepared for the proposed Pacific Specific Plan Project (proposed project) by Dudek in January 2023. The Fire Protection Plan is included as Appendix N to this environmental impact report (EIR).

Table 3.13-1 summarizes the proposed project- and cumulative-level public services analysis impact, by thresholds of significance.

**Table 3.13-1. Public Services Summary of Impacts**

| Threshold of Significance  | Project Direct Impact | Project Cumulative Impact | Significance Determination |
|--|-----------------------|---------------------------|----------------------------|
| <b>No. 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for:</b> |                       |                           |                            |
| Fire protection services   | Less than Significant | Less than Significant     | Less than Significant      |
| Police protection services   | Less than Significant | Less than Significant     | Less than Significant      |
| Schools  | Less than Significant | Less than Significant     | Less than Significant      |
| Parks  | Less than Significant | Less than Significant     | Less than Significant      |
| Other public facilities  | Less than Significant | Less than Significant     | Less than Significant      |

### 3.13.1 Existing Conditions

This section details the existing service providers and resources related to fire protection, police protection, schools, parks, and libraries.

#### Fire Protection

The proposed project site is located within the San Marcos Fire Protection District boundary, which covers an area of 33 square miles and serves a population of approximately 95,000 residents (City of San Marcos 2021a). The City of San Marcos Fire Department (SMFD) would provide fire protection and emergency medical services to the proposed project site. While the San Marcos Fire Protection District provides primary service to the City of San Marcos, the District also has an existing automatic mutual aid fire agreement in place with the cities of Carlsbad, Vista, Escondido, Encinitas, and the Rancho Santa Fe Fire Protection District.

SMFD currently operates four fire stations, four paramedic assessment engine companies, one paramedic assessment truck company, five paramedic transport ambulances (24-hour units), one shift Battalion Chief, and one on-call duty Chief. SMFD also cross-staffs three wildland fire engines and a State of California/Office of Emergency Services wildland fire engine. (City of San Marcos 2021a). The SMFD Station 2, located at 1250 South Rancho Santa Fe Road, San Marcos, California 92078, is the closest station to the project site and would likely serve the project site should fire response or emergency services be needed (City of San Marcos 2021b). SMFD

Station 2 is located approximately 2 miles southwest of the proposed project site. SMFD Station 2 houses one paramedic engine company and one paramedic ambulance in addition to fire response service equipment.

### Police Protection

According to the City's General Plan – Land Use and Community Design Element, the City contracts their law enforcement services from the San Diego County Sheriff's Department (City of San Marcos 2012a). The proposed project would be served by the Sheriff's San Marcos Station, located at 182 Santar Place in the northeast quadrant of the City (City of San Marcos 2012a). This sheriff station is located approximately 4 miles east of the proposed project site.

The sheriff's San Marcos Station provides law enforcement services to the City and unincorporated communities of Harmony Grove, Elfin Forest, Lake San Marcos, Hidden Meadows, Ivy Del, Del Dios, Lake Hodges, and the San Pasqual Valley (SDCSD 2021). Law enforcement services include general patrol, criminal investigation, crime prevention, juvenile services, narcotics and gang investigations, communications and dispatch, and various management support services (City of San Marcos 2012a). Services are available 24 hours a day, 7 days a week.

The San Marcos Station serves more than 111,000 residents and staffs over 100 deputies, volunteers, and professional staff members (SDCSD 2021). Additionally, Community-Oriented Police and Problem-Solving teams are assigned to investigate community quality of life issues (SDCSD 2021). Lastly, the Sheriff's San Marcos Station has the only ASTREA (Sheriff's Aviation) landing pad in the County, providing assistance to ground units and extending the range deputies can patrol (SDCSD 2021).

The San Diego County Sheriff's Department does not set response time goals. The sheriff's department does, however, prioritize different types of calls to better facilitate deputy dispatches. The sheriff department's priority categories are as follows: priority level 1 (lifesaving response calls), priority level 2 (expeditious response calls within confines of vehicle codes), priority level 3 (calls responded to as soon as possible), and priority level 4 (calls responses to when clear, still being alerted to violations that require immediate law enforcement action) (City of San Marcos 2012a).

### Schools

According to the City's General Plan – Land Use and Community Design Element, primary education throughout the City is served by the San Marcos Unified School District (SMUSD) (City of San Marcos 2012a). SMUSD is approximately 44 square miles and serves the City of San Marcos, portions of the City of Carlsbad, the City of Escondido, the City of Vista, and unincorporated areas of San Diego County (SMUSD 2019). As of 2019, there were ten elementary schools, one K-8 school, one K-8 International Baccalaureate World School, three middle schools, two comprehensive high schools, and an alternative high school program that are a part of the SMUSD. There are approximately 20,900 students enrolled in the SMUSD (SMUSD 2019).

As outlined in the Pacific Specific Plan prepared for the project site (Appendix M to this EIR) the project site would be served by the following schools:

- La Mirada Academy (serving grades K–8), located at 3697 La Mirada Drive, San Marcos, California 92069
- San Marcos High School (serving grades 9–12), located at 1615 West San Marcos Boulevard, San Marcos, California 92069

The schools listed above are expected to serve the proposed project and are located approximately 0.25 miles west and 0.58 miles south of the project site, respectively.

## Parks

The purpose of the City's Parks, Recreation, and Community Health Element of the General Plan is to provide recreational opportunities, which contribute to the health and well-being of the residents of San Marcos and to provide goals and policies that outline the role recreational amenities play in achieving the City's vision for the future (City of San Marcos 2012c).

There are 16 major community parks and 18 mini parks located throughout the City. The City residents in the proposed project area are currently served by several nearby parks. Specifically, the closest park to the project site is Bradley Park located at 1587 Linda Vista Drive, which is adjacent to the project site to the southwest. Bradley Park consists of lighted soccer fields, ball fields, picnic tables, picnic shelters, a turf play area, a tot-lot, an on-site caretaker, and horseshoe courts (City of San Marcos 2012c).

Other nearby parks include Mission Sports Park, located 1 mile northeast of the project site, Innovation Park, located approximately 1 mile northeast of the project site, and Sunset Park, located approximately 0.80 miles east of the project site.

## Libraries

The City is served by the San Diego County Library, San Marcos Branch located at 2 Civic Center Drive, approximately 2 miles east of the proposed project site (City of San Marcos 2021c). The San Marcos Branch is 15,394 square feet (City of San Marcos 2012a), and contains a MakerBot 3-D printer, a 28-person capacity meeting room, is Americans with Disabilities Act accessible, and is open 7 days a week prior to closures resulting from the 2020 COVID-19 pandemic (San Diego County Library 2021).

## 3.13.2 Regulatory Setting

This section provides an overview of the applicable state and local regulations governing public services.

### State

#### Quimby Act

Since the passage of the 1975 Quimby Act (California Government Code Section 66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated by the Quimby Act cannot be used for the operation and maintenance of park facilities. The goal of the Quimby Act was to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties.

#### California Fire Code

The California Fire Code and Office of the State Fire Marshal provides regulations and guidance for local agencies in the development and enforcement of fire safety standards. The California Fire Code also establishes minimum requirements that would provide a reasonable degree of safety from fire, panic, and explosion.

## Senate Bill 50 – Leroy F. Greene Schools Facilities Act of 1998

Senate Bill (SB) 50, or the Leroy F. Greene School Facilities Act of 1998, restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. Payment of school fees are also collected at the time when building permits are issued. Payment of school fees is required by SB 50 for all new residential development projects and is considered full and complete mitigation of any school impacts (Government Code section 65996). As required by SB 50, school impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any school impacts. School impact fees and fees collected pursuant to SB 50 are collected at the time when building permits are issued.

### Local

#### City’s Municipal Code Chapter 17.36 – Park and Recreational Development Construction Unit Fee

The City’s Municipal Code Chapter 17.36, Park and Recreational Development Construction Unit Fee, describes the need for developers of dwelling units within the City to pay applicable fees towards the City for the planning, acquisition, improvement, expansion and operation of public parks, playgrounds, and recreational facilities to help mitigate the potential impacts on recreational facilities due to population increases (City of San Marcos 2021d). The payment of fees shall be collected prior to the issuance of building permit by the City.

#### City’s Municipal Code Chapter 17.44 – Development Services and Public Facilities Exactions, Fees, and/or Costs

The City’s Municipal Code Chapter 17.44, Development Services and Public Facilities Exactions, Fees, and/or Costs, describes the payment of fees towards public services, facilities, and infrastructure in the City to mitigate increased demand on these facilities due to development of dwelling units (City of San Marcos 2021e). The developer of new dwelling units in the City would pay development service fees to the City alongside submission of application for grading, construction, building and/or development permit or entitlement by any person, or at the time of permit issuance, as specified by the City (City of San Marcos 2021e).

#### City’s Municipal Code Chapter 17.52 – School Fees and Land Dedication

The City’s Municipal Code Chapter 17.52, School Fees and Land Dedication, describes the school facility fee dedications needed in the City to alleviate potential overcrowding in schools resulting from increased population from the development of dwelling units (City of San Marcos 2021f).

The City may require, as a condition to the approval of a residential development, the dedication of land, the payment of fees in lieu, or a combination of both, as determined by the decision-making body during the hearings and other proceedings, on specific residential development applications falling within their respective jurisdiction. Prior to imposition of the fees and/or dedications of land, it shall be necessary for the decision-making body acting on the application to make the following findings:

- The City’s General Plan provides for the location of public schools.
- The land or fees, of both, transferred to a school district shall be used only for the purpose of providing interim elementary, junior high or high school classroom and related facilities as defined by the governing body of the district.



- The location and amount of land to be dedicated or the amount of fees to be paid, or both, shall bear a reasonable relationship and will be limited to the needs of the community for interim elementary, junior high or high school facilities and shall be reasonably related and limited to the need for schools caused by the development.
- The facilities to be constructed, purchased, leased, or rented from such fees or the land to be dedicated or both is consistent with the City's General Plan.

## City of San Marcos General Plan

### Land Use and Community Design Element

The following are applicable goals and policies from the City of San Marcos General Plan, Land Use and Community Design Element related to public services (City of San Marcos 2012a):

Goal LU-8: Ensure that existing and future development is adequately serviced by infrastructure and public services.

Policy LU-8.1: New development shall pay its fair share of required improvements to public facilities and services.

Policy LU-8.2: Promote development timing that is guided by the adequacy of existing and/or expandable infrastructure, services, and facilities.

Goal LU-10: Fire protection, emergency services, and law enforcement: Provide effective, high-quality and responsive services.

Policy LU-10.1: Provide demand-based fire-fighting and emergency medical services infrastructure, equipment, and personnel to provide a high level of fire, emergency medical, and law enforcement service in San Marcos to meet existing and future demands.

Policy LU-10.2: Work closely with the County of San Diego Sherriff's Department to determine and meet the community needs for adequate personnel, equipment and state-of-the-art technology to effectively combat crime, and meet existing and projected service demands.

Policy LU-10.3: Continue to conduct Public Outreach and education regarding fire safety and crime prevention within San Marcos.

Goal LU-11: Schools: Ensure all residents have access to high-quality education.

Policy LU-11.1: Collaborate with the local public school district (SMUSD), private schools, and institutions of higher learning to ensure a range of traditional and distance-learning educational opportunities are provided in superior, accessible facilities that complement the surrounding land uses.

Policy LU-11.2: Work with San Marcos Unified School District and developers to ensure adequate school facilities are funded as required by State law and through developer mitigation agreements between the school district and the developer. The City shall require a "will serve" letter substantiating that the developer has paid fees to the satisfaction of the school district prior to issuance of building permits.

Goal LU-12: Libraries: Provide library resources and services that meet the needs of the community.

Policy LU-12.1: Provide adequate library facilities and technological access that enhance San Marcos's quality of life and create a civic environment with vast opportunities for self-learning and academic enrichment.

Policy LU-12.2: Accommodate technology needs of the community and locate accessible technology in the library.

#### Safety Element

The following are applicable goals and policies from the City of San Marcos General Plan, Safety Element related to public services, including fire protection, police protection, parks, and libraries (City of San Marcos 2012b):

Goal S-3: Minimize injury, loss of life, and damage to property resulting from structural or wildland fire hazards.

Policy S-3.1: Require development to be located, designed and constructed to provide adequate defensibility and reduce the risk of structural loss and life resulting from wildland fires. Development will consider hazards relative to terrain, topography, accessibility and proximity to vegetation. One such provision for development to minimize the risk of structural loss and life shall be the inclusion of overhead fire sprinklers.

Policy S-3.2: Provide sufficient level of fire protection service to reduce risk from urban and wildland fire. Advocate and support regional coordination among fire protection and emergency service providers.

Policy S-3.3: Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.

Policy S-3.4: Coordinate with fire protection and emergency service providers to assess fire hazards before and after wildfire events to adjust fire prevention and suppression needs, as necessary, commensurate with both short- and long-term fire prevention needs.

Goal S-6: Provide neighborhood safety through effective law enforcement.

Policy S-6.1: Continue to maintain demand-based law enforcement service levels to reduce the risk of criminal activity.

Policy S-6.2: Continue public education efforts and community outreach programs to promote community involvement in crime and drug prevention.

Policy S-6.3: Use Crime Prevention through Environmental Design (CPTED) principles in the design or redevelopment of projects and buildings.

### Parks, Recreation, and Community Health Element

The following are applicable goals and policies from the City of San Marcos General Plan, Parks, Recreation and Community Health Element related to parks (City of San Marcos 2012c):

Goal PR-1: Plan for, acquire, develop, and maintain a system of local parks connected through an integrated network of trails and high-quality recreational facilities.

Policy PR-1.1: Develop and maintain a complete system of public parks and recreational amenities that provide opportunities for passive and active recreation at a minimum standard of 5 acres per 1,000 residents. Parks, trails, and recreational facilities will enhance community livability, public health, and safety; should be equitably distributed throughout the City; and be responsive to the needs and interests of residents, employees, and visitors.

Policy PR-1.3: Ensure that the development of parks, trails, and recreation facilities and services keeps pace with development and growth within the City.

Policy PR-1.4: Promote increased access to parks and open spaces, pedestrian- and bike-oriented routes to parks and open space, greening of public rights-of-way, and a variety of active and passive uses of parks and open space.

Policy PR-1.5: Require new development to be designed and constructed in accordance with the approved Parks Master Plan to meet or exceed the City's parkland standard of 5 acres per 1,000 residents.

Policy PR-1.6: Require new infill development to provide plazas, mini parks, or other civic spaces as part of their parkland requirement.

Policy PR-1.7: Promote park and facility design that discourages vandalism, deters crime, provides natural surveillance, and creates a safe and comfortable environment.

The project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10.4, Project Impact Analysis, the proposed project is consistent with all applicable goals and policies pertaining to public services.

### 3.13.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to public services are based on Appendix G of the California Environmental Quality Act Guidelines. According to Appendix G of the California Environmental Quality Act Guidelines, a significant impact related to public services would occur if the project would:

Threshold No. 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection
- Police protection

- Schools
- Parks
- Other public facilities

### 3.13.4 Project Impact Analysis

***Threshold No. 1: 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 times, or other performance objectives for any of the public services:***

#### Fire protection?

Residential uses were not considered at the project site in the City's General Plan, and the land use change from Industrial to Specific Plan Area to accommodate the proposed residential development could result in an increase in demand on SMFD. As analyzed in Section 3.12, Population and Housing, the proposed project would result in development of 449 residential dwelling units, housing approximately 1,388 residents. The estimated generation of 1,388 residents is calculated based on an average of 3.09 occupants per household, as outlined in Section 3.12 of this EIR.

The proposed project would increase the demand on SMFD resources in comparison to development of an industrial use under the current allowed land use designation, due to the introduction of approximately 1,388 residents on the currently vacant site. Although not all residents of the project would be new to the City, the estimated additional numbers of residents at the project site would increase the need for fire protection services related to routine fire and emergency medical calls, and would increase the demand on SMFD Station 2, which would provide primary response to the project site; with SMFD Station 1 and Vista Fire Department Station 4 responding as necessary.

As described in detail in the Fire Protection Plan (Appendix N to this EIR), based on the project site location in relation to existing SMFD stations, travel time to the project site for the first responding engine from SMFD Station 2 is 4 minutes, 26 seconds to the central portion of the project site, entering from the furthest ingress/egress point on La Mirada Drive. Travel time for secondary response is approximately 4 minutes and 37 seconds. However, travel time does not account for dispatch and turnaround time. In order to estimate a total response time, an additional 2 minutes were added to the total travel time. This results in an estimated response of 6 minutes and 26 seconds for project from SMFD Station 2. The total secondary response for SMFD Station 1 would be approximately 6 minute and 37 seconds and approximately 7 minutes and 17 seconds from Vista Fire Department Station 3. SMFD's internal response time standard is to have the first arriving fire apparatus on-site within 8 minutes (average maximum initial response of no more than 8 minutes for fire apparatus and 9 minutes for ambulance, 90% of calls). The project would conform with SMFD's internal response time standard and would not have an overall impact on SMFD's ability to meet its average response goals (Appendix N).

In addition, the proposed project would be required to comply with the City's Development Services Fees outlined in Section 17.44.030 of the City's Municipal Code. Payment of the Development Services Fees go towards City services, which include the Fire Protection District, to ensure adequate fire protection facilities are provided. Additionally, as a condition of project approval, prior to the issuance of a grading permit, the applicant/developer/property owner shall submit an executed version of petition to annex into and establish, with respect to

the property, the special taxes levied by the following Community Facility District: CFD 2001-01 (Fire and Paramedic). This would offset the project's increase in demand for fire protection services.

For the reasons stated above, it is determined that potential impacts to fire protection as a result of the proposed project would be less than significant.

### Police protection?

As discussed above under Fire Protection, the proposed residential development would develop 449 residential dwelling units, generating approximately 1,388 residents at the project site. Residential development at the project site would increase the demand on police protection services in comparison to the industrial uses allowed under the current land use designation due to the introduction of residents on the currently vacant site. Although not all residents would be new to the City, the proposed project could increase the need for police protection services through routine police and emergency calls and could increase the demand on the San Diego County Sheriff's Department San Marcos Station, which would serve the project site. The San Marcos Station is located approximately 4 miles east of the project site.

Implementation of the proposed project would be expected to increase the frequency of emergency and non-emergency calls to the Sherriff's Department. However, as discussed in Section 3.13.1, Existing Conditions, over 100 deputies, volunteers, and professional staff serve the residents of the City. Law enforcement services include general patrol, criminal investigation, crime prevention, juvenile services, narcotics and gang investigations, communications and dispatch, and various management support services. Unlike fire services, which respond solely to emergencies, law enforcement services consist of patrolling large areas 24 hours a day, 365 days a year. Police units are continuously mobile, and service calls are responded to by the nearest available mobile unit. At the San Marcos Station, patrol deputies are assigned to a geographical "beat" area, allowing deputies to become familiar with citizens and problems within their "beats" (SDCSD 2021). Accordingly, service ratios and response times are anticipated to remain adequate with implementation of the proposed project. As such, the proposed project is not expected to affect police protection such that new or physically altered governmental facilities are needed.

Additionally, the proposed project would be required to comply with the City's Development Services Fees outlined in Section 17.44.030 of the City's Municipal Code. Payment of the Development Services Fees funds needed City services, which include the Sheriff's Department. Furthermore, as a condition of project approval, the project applicant shall annex the site into the preexisting Community Facilities District for Police Services (CFD 98-01, Improvement Area No. 1). Participation in the CFD will offset the cost of increases in necessary services resulting from implementation of the proposed project.

Therefore, while the proposed project would likely place a slight increase in demand on police protection services, it is not anticipated that the proposed project would result in the need for construction or expansion of existing police facilities and impacts to police protection resulting from the proposed project would be less than significant.

### Schools?

As outlined above, the proposed project would develop 449 residential dwelling units, generating approximately 1,388 residents, some of which are expected to be students. As described under Section 3.13.1, primary education throughout the City is served by SMUSD. La Mirada Academy (serving grades K-8) and San Marcos High School (serving grades 9-12) are the schools within SMUSD that would be expected to serve grade-school residents at the project site. Using SMUSD student generation rates as described in the City's General Plan - Land Use and

Community Design Element (elementary students = 0.2271, middle school students = 0.0963, high school students = 0.1032), the proposed project would generate approximately 315 elementary school students, 134 middle school students, and 143 high school students, respectively (City of San Marcos 2012a).

Prior to project approval, the project would be required to obtain will-serve letters from the SMUSD or servicing schools to confirm such schools have adequate capacity. Furthermore, the project would be required to contribute development fees to SMUSD pursuant to California Education Code Section 17620 et seq. and Government Code Sections 65995(h) and 65996(b), as well as the City's Municipal Code Section 17.52.050. The project developer/applicant would be required to pay the school mitigation fees that are in effect at the time of building permit issuance, unless a direct agreement otherwise has been made with the SMUSD. The current school fee for residential development required by SMUSD is \$4.44 per square foot; however, this fee amount could change between the drafting of this EIR and the time of building permit issuance (SMUSD 2020). Further, consistent with General Plan Policy LU-11.2, the project would be required to provide a letter from the school district(s) to the City prior to the issuance of building permits confirming these fees have been paid (City of San Marcos 2012a). SB 50 states that the fees imposed by school districts shall constitute the exclusive method of considering and mitigating impacts on school facilities caused by a development project. Such payment shall provide "full and complete mitigation of the impacts of any legislative or adjudicative act...on the provision of adequate school facilities" (Government Code Section 65995[h]). As such, with contribution of required development fees, impacts to schools as a result of the proposed project would be less than significant.

### Parks?

As previously described, the proposed project would develop 449 residential dwelling units, generating approximately 1,388 residents. This increase in residents would increase demands for neighborhood and regional parks and other recreational facilities. Assuming 5 acres of park space per 1,000 residents (the minimum standard goal of the City's General Plan, discussed in Section 3.14.2, Regulatory Setting), the addition of 1,388 residents at the project site equates to a demand of approximately 6.94 acres of public park space generated by the proposed residential development. The City requires any project that increases the demand for parks and recreation facilities to pay into the City's Public Facility Fee (PFF). This fee is to be used for developing public neighborhood parks, regional parks, and recreational facilities, as outlined in the City's Park Master Plan Update (City of San Marcos 2018). The provision of useable common open space, private open space, and payment of the PFF would maintain the City's service standard for parks within the City.

The proposed project would be required to pay the City's PFF, which is required of all projects that increase the demand for park and recreation needs in the City. The PFF would be used for developing public neighborhood and regional parks and recreational facilities. Furthermore, the project would provide approximately 134,985 square feet (2.42 acres) of common open space area on-site for private use by residents, which would further off-set demand on existing recreational facilities in the City, as required by the City's Municipal Code (Section 20.215.050). Therefore, impacts related to the use of park facilities are considered less than significant. Further details regarding parks and recreation can be found in Section 3.14, Recreation.

### Other public facilities?

The proposed project would develop 449 units, generating approximately 1,388 residents at the project site. Although not all of these residents would be new residents to the City, the generation of residents at the project site would increase the demands on library services and resources in comparison to the project site's current Industrial land use designation. However, additional library services are available in the County through a

cooperation of County libraries, independent city libraries, and the Imperial County Library, which collectively form the Serra Library System. This system enables County library cardholders to check out library materials from the other Serra member libraries (Serra Cooperative Library System 2016). In addition, community members can purchase a community borrower card to obtain borrowing privileges at the California State University San Marcos campus (CSUSM 2021). Community members can also borrow materials at Palomar Community College with a valid picture ID and proof of current mailing address (Palomar College 2021). These additional library resources are located in the San Marcos community and provide over 200,000 square feet of additional library space. Therefore, impacts to other public facilities in the City as a result of the proposed project would be less than significant.

### 3.13.5 Mitigation Measures

No significant impacts to public services were identified; thus, no mitigation measures are required.

### 3.13.6 Conclusion

As analyzed above, the proposed project would develop 449 residential units, generating approximately 1,388 residents at the project site. This would result in an increase in demand for fire protection, emergency medical services, police protection, school services, and library facilities. However, the project and cumulative projects would be required to comply with applicable regulations and pay all applicable development fees discussed above, including payment of school mitigation fees pursuant to California Education Code Section 17620 et seq. and Government Code Sections 65995(h) and 65996(b), as well as the City's Municipal Code Section 17.52.050; payment towards the City's Development Services Fees outlined in Section 17.44.030 of the City's Municipal Code, which goes towards City services, which include the Fire and Police services; and payment of the City's PFF required to all projects that increase the demand for park and recreation needs in the City, in order to avoid direct and cumulative impacts to schools and parks. Project compliance with applicable regulations and payment of the applicable fees outlined above would ensure direct and cumulative impacts to public services would be less than significant.

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## 3.14 Recreation

This section describes the existing recreation setting of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Pacific Specific Plan Project (proposed project).

Table 3.14-1 summarizes the project- and cumulative-impact analysis by threshold for the proposed project.

**Table 3.14-1. Recreation Summary of Impacts**

| Threshold of Significance  | Project Direct Impact | Project Cumulative Impact | Significance Determination |
|--|-----------------------|---------------------------|----------------------------|
| No. 1 - The project increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. | Less Than Significant | Less Than Significant     | Less Than Significant      |
| No. 2 - The project includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.                      | Less Than Significant | Less Than Significant     | Less Than Significant      |

### 3.14.1 Existing Conditions

This section describes existing park, recreation facilities, and trails on the project site and in the project vicinity. The City of San Marcos (City) has over 290 acres of park land and 37 parks (City of San Marcos 2023.). The City of San Marcos’s Parks Master Plan classified parks into 8 different categories: regional parks; community parks; neighborhood parks; mini (urban) parks; special use facilities; historical, monuments, and memorials; recreation centers; and aquatic centers (City of San Marcos 2018). Details on each of these park categories are detailed below.

#### Regional Parks

Regional parks are defined as parks that are a minimum of 50 acres with 75 or more acres being optimal (City of San Marcos 2018). The drive time to a Regional Park is approximately 1 hour or less, and offers a variety of terrain, scenic views, cultural amenities and extensive natural areas with both passive and active opportunities. Double Peak Regional Park is the closest regional park to the project site and offers amenities such as an amphitheater, restrooms, trail connections, play equipment and picnic tables.

#### Community Parks

Community parks are defined as parks that are a minimum size of 10 to 100 acres (City of San Marcos 2018). Community parks serve two or more neighborhoods with a service area of 0.5 to 3 miles. There are five community parks in the City of San Marcos: Bradley Park, Woodland Park, Walnut Grove Park, Discovery/Lakeview Park, and Double Peak Park. Bradley Park and Discovery/Lakeview Park would serve the project site, as the project site is located within the service area of these two parks. Bradley Park is located immediately adjacent to the project site to the west, and Discovery/Lakeview Park is located approximately 2 miles southeast of the project site.

## Bradley Park

Bradley Park is the City's oldest park comprising a total of 34 acres located at the intersection of Rancho Santa Fe Road and Linda Vista Drive. It is a sports-oriented facility with 26 acres already developed, leaving a final 10 acres for future planning, design, and construction. The site contains two flat areas divided by a short, steep, slope. The "Upper Mesa" contains the area currently under construction for new active recreation facilities and yet to be planned acreages, while the already developed acreage is on the "Lower Mesa." The existing emphasis of the park is active sports facilities. This park is the primary site for active sports in the City. This park includes, tot lots, picnic areas, artificial turf areas and an indoor soccer arena (by permit only) (City of San Marcos 2018).

## Discovery/Lakeview Park

Lakeview Park is located at the corner of Foxhall and Poppy Road. Lake View Park (at Discovery Lake) is 23 acres of open space and a 5-acre lake. This park has a trail around the lake (City of San Marcos 2018).

## Neighborhood Parks

Neighborhood parks are defined as parks that are generally 5 acres, although 7 to 10 acres are optimal (City of San Marcos 2018). Neighborhood parks have a service area of 0.25 to 0.5 miles and should be accessible by arterial roads. There are 14 neighborhood parks in the City: Buelow Park, Connors Park, Hollandia Park, Innovation Park, Knob Hill Park, Jacks Pond Park, Cerros de Las Posas Park, Mission Sports Park, Montiel Park, Mulberry Park, Richmar Park, San Elijo Park, Simmons Family Park, and Sunset Park.

## Mini (Urban) Parks

Mini (urban) parks are defined as parks that are between 2,500 square feet and 1 acre in size, although a park area of less than 5 acres could be considered a mini park (City of San Marcos 2018). A mini park's service area is 0.25 miles or less and in a residential setting. There are 18 mini (urban) parks in the City: Alder Glen Park, Amigo Park, Bougher Park, Children's Park, Civic Center Park, Creek View Park, Discovery Meadows, Foothill Park, The Laurels Park, Optimist Park, Pebblestone Park, Quail Valley Park, Questhaven Park, Regency Hills Park, Ridgeline Trailhead, Santa Fe Hills Park, Summer Hill Park, and Valley View Park.

## Special Use Facility

A special use facility includes three categories of facilities (City of San Marcos 2018):

- **Historic/Cultural/Social Sites** – A unique local resource offering historical, education, and cultural opportunities. Examples include historic downtown areas, performing arts parks, arboretums, display gardens, performing arts facilities, indoor theaters, churches, public buildings, and amphitheaters.
- **Recreation Facilities** – A specialized or single purpose facility. Examples include community centers, senior centers, community theaters, hockey arenas, marinas, golf courses and aquatic parks.
- **Outdoor Recreation Facilities** – Examples include tennis centers, softball complexes, sports stadiums, skateboard parks, and bark parks.

The size and service area of a special use facility varies greatly.

## Historical, Monuments, and Memorials

Historical, monuments, and memorials parks preserve monuments and memorials, provide programmed historic interpretation, attract tourists and offer passive recreation opportunities (such as trails) (City of San Marcos 2018). The size and service area varies.

## Recreation Centers

Recreation centers are intended to provide indoor leisure facilities and programs at a reasonable cost. Recreation centers also serve as meeting facilities for local social gatherings, public events, and are designed to be a hub of recreation activity (City of San Marcos 2018). The size and service area varies.

## Aquatic Centers

Aquatic centers are swimming facilities that provide active recreation for the residents of San Marcos. The size of these facilities varies. The service area is a minimum population of 25,000, and the recommended level of service is one aquatic center site per 40,000 persons in San Marcos (City of San Marcos 2018).

## Trails

The City currently owns and manages 63 miles of completed trails with plans to expand the trail network to 72 miles (City of San Marcos 2018). The goal of the trail system is two-fold: to serve as a recreational amenity and to provide an alternative means of circulation for non-motorized travelers through an inter-linked citywide system of trails connecting residential neighborhoods to parks, schools, colleges, stores, restaurants, movie theaters, other important destinations within the City, and with the wider regional trails system in adjacent cities.

## 3.14.2 Regulatory Setting

This section describes the state and local laws and regulations that are applicable to recreation and the proposed project.

### State

#### Quimby Act

Since the passage of the 1975 Quimby Act (California Government Code Section 66477), cities and counties have been authorized to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated by the Quimby Act cannot be used for the operation and maintenance of park facilities. The goal of the Quimby Act was to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties.

#### The Landscape and Lighting Act of 1972

The Landscape and Lighting Act of 1972 enables cities, counties, and special districts to acquire land for parks, recreation and open space. A local government may also use the assessments to pay for improvements and maintenance in these areas.

## The Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act (Government Code Section 53311 et seq.) is a tax-based financing method available to cities, counties, and special districts. It authorizes local governments to establish community facilities districts within which they may levy special taxes and issue bonds to finance open space acquisition, maintenance, and other programs. Approval of the special tax and any related bond issue requires approval by two-thirds of the district electorate.

### Local

#### City's Municipal Code Chapter 17.36 – Park and Recreational Development Construction Fee

As described in Chapter 17.36 in the City's Municipal Code, the continued increase in the development of dwelling units and population within the City has created the need for planning, acquisition, improvement, expansion and operation of public parks, playgrounds, recreational facilities in the City, and thus the need for additional revenues with which to finance such facilities. This chapter of the Municipal Code requires that each builder of each dwelling unit to be constructed within the City of San Marcos shall, prior to the construction, pay a fee, as adopted by Resolution by the City Council (City of San Marcos 2021a).

#### City's Municipal Code Chapter 17.44 – Development Services and Public Facilities, Exaction, Fees and/or Costs

The City recognizes that the continued development of property within the City's jurisdictional boundaries has resulted in an increased demand on existing public services, facilities and infrastructure; the need for expansion of public services, facilities and infrastructure; and/or the need for the installation of new public services, facilities, and infrastructure. It is the intent of the City that each applicant for a grading, construction, building and/or development permit or entitlement shall, prior to the issuance of such permit or entitlement, pay Public Facilities Fees. The funds generated by the payment of fees described the City's Municipal Code Chapter 17.44 shall be deposited into separate accounts established for the purposes of maintaining, expanding, and installing public infrastructure. Such public infrastructure includes active or passive open space and parks (City of San Marcos 2021b).

### City of San Marcos General Plan

#### Parks, Recreation, and Community Health Element

The following are applicable goals and policies from the City of San Marcos General Plan, Parks, Recreation, and Community Health Element (City of San Marcos 2012):

Goal PR-1: Plan for, acquire, develop, and maintain a system of local parks connected through an integrated network of trails and high-quality recreational facilities.

Policy PR-1.1: Develop and maintain a complete system of public parks and recreational amenities that provide opportunities for passive and active recreation at a minimum standard of 5 acres per 1,000 residents. Parks, trails, and recreational facilities will enhance community livability, public health, and safety; should be equitably distributed throughout the City; and be responsive to the needs and interests of residents, employees, and visitors.

Policy PR-1.3: Ensure that the development of parks, trails, and recreation facilities and services keeps pace with development and growth within the City.

Policy PR-1.4: Promote increased access to parks and open spaces, pedestrian- and bike-oriented routes to parks and open space, greening of public rights-of-way, and a variety of active and passive uses of parks and open space.

Policy PR-1.5: Require new development to be designed and constructed in accordance with the approved Parks Master Plan to meet or exceed the City's parkland standard of 5 acres per 1,000 residents.

Policy PR-1.6: Require new infill development to provide plazas, mini parks, or other civic spaces as part of their parkland requirement.

Policy PR-1.7: Promote park and facility design that discourages vandalism, deters crime, provides natural surveillance, and creates a safe and comfortable environment.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10.4, the project is consistent with the applicable goals and policies pertaining to recreation.

### Parks Master Plan

The City adopted its first Parks Master Plan in 1990, which presented a vision of parks and recreation facilities for the City. Since that time, the City has changed significantly, so a Master Plan Update was adopted in 2017. The goal of the Parks Master Plan Update is to identify potential improvements to the park system and, as funding becomes available, suggest additional amenities for new parks and improvements to existing park facilities (City of San Marcos 2018).

### Master Trails Plan

The City's Master Trails Plan, adopted in 1991, details a trails implementation strategy and description of each proposed trail segment. The plan envisions a system of connectivity through trail corridors networked across the City. To meet this goal, the Master Trails Plan recommends the creation of 72 miles of trails that will provide an alternative means of circulation and recreational opportunities to San Marcos residents and visitors. These trails will include 21 miles of urban trails, 36 miles of multi-use trails, and 15 miles of soft-surface trails that connect neighborhoods to parks, schools and workplaces as well as to the trails systems of neighboring cities and the County of San Diego (City of San Marcos 2018).

## 3.14.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to recreation are based on Appendix G of the California Environmental Quality Act Guidelines. According to Appendix G of the California Environmental Quality Act Guidelines, a significant impact related to recreation would occur if the project would:

Threshold No. 1: 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.

Threshold No. 2: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### 3.14.4 Project Impact Analysis

***Threshold No. 1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

According to the State of California Department of Finance, there are approximately 3.09 persons per housing unit in San Marcos (DOF 2020). The project proposes development of 449 residential dwelling units, which is estimated to generate approximately 1,388 residents using the Department of Finance's 3.09 persons per household unit estimate (see Section 3.12, Population and Housing). This increase in residents would increase demands for neighborhood and regional parks and other recreational facilities. Assuming 5 acres of park space per 1,000 residents (the minimum standard goal of the City's General Plan discussed in Section 3.14.2), the addition of residents on site equates to a demand of approximately 6.94 acres of public park space generated by residents of the project site.

In addition to private balcony/patio space for each residential unit, the project proposes 134,985 square feet (3.09 acres) of private common open space area for residents. The project would be required to comply with the City's Municipal Code requirements, which outline recreation and open space requirements of residential development. In addition, the project would be required to pay the City's Public Facility Fees (PFF), required to all projects that increase the demand for park and recreation needs in the City. The PFF money would go towards the acquisition and development of local and community park facilities throughout the City to offset the demand on public park space, as described in Municipal Code Chapter 17.36 and 17.44. Payment of the PFF shall be made prior to City issuance of the first building permit for the project. Therefore, payment, which would ultimately contribute to development of new parks and recreational facilities, would offset the increase in demand of parks and recreational facilities generated by residential development at the project site, such that existing facilities would not substantially deteriorate. Therefore, proposed project impacts to existing neighborhood and regional parks are determined to be less than significant.

***Threshold No. 2: Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

As stated under Threshold No. 1, in addition to private balcony/patio space for each residential unit, the project proposes 134,985 square feet of private common open space area for residents. Inclusion of the proposed open space area on-site has been analyzed as part of the project throughout this environmental impact report and is not expected to result in physical effects on the environment. Furthermore, the project developer would be required to pay the City's PFF, which would go towards the acquisition and development of local and community park facilities throughout the City to offset the demand on public park space. Therefore, impacts related to the construction or expansion of recreational facilities are considered less than significant.

### 3.14.5 Mitigation Measures

No significant impacts to recreation were identified; thus, no mitigation is required.

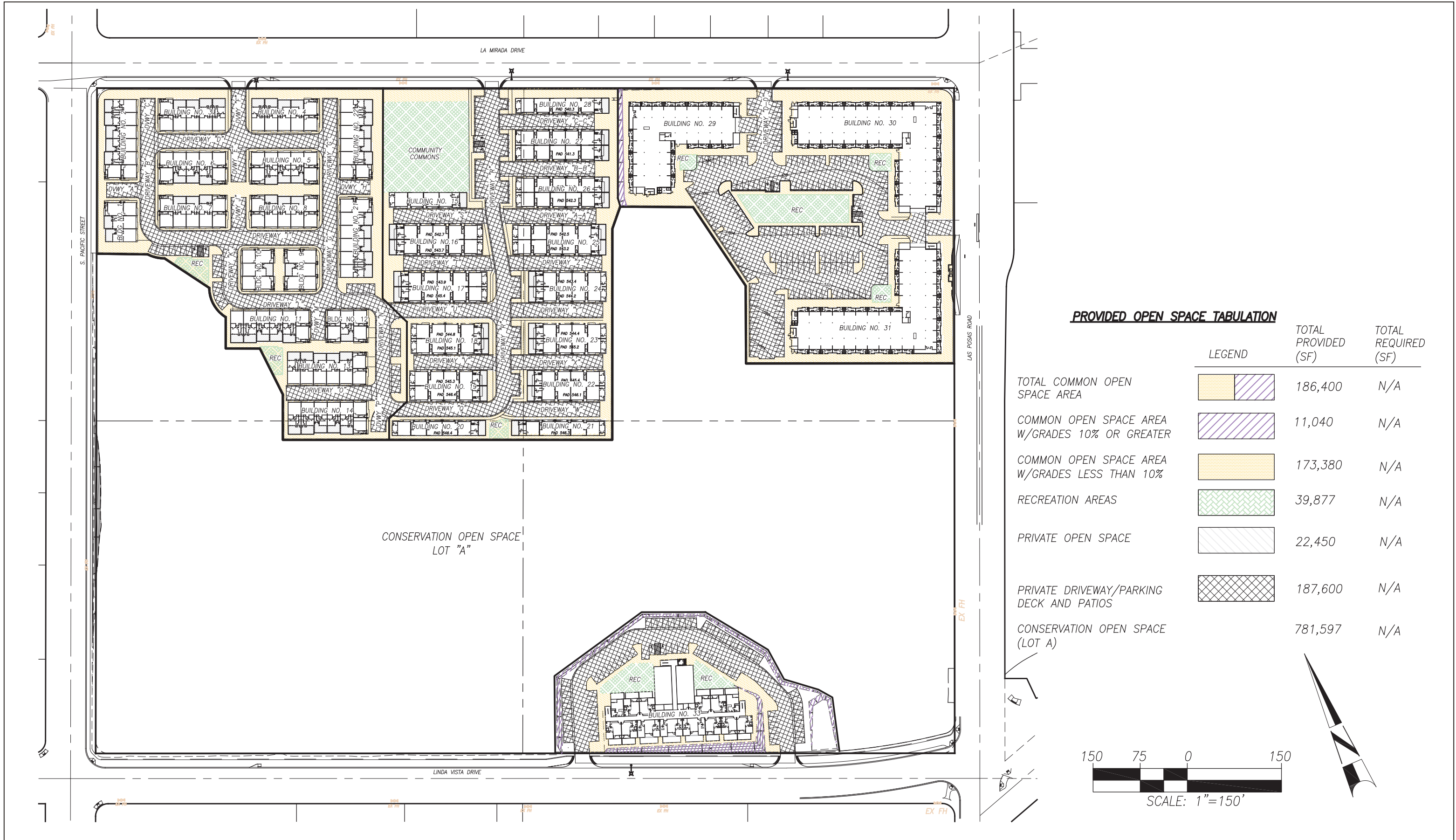
### 3.14.6 Conclusion

As analyzed in Section 3.14.4, the project is required to present site plans outlining proposed open space and recreational amenities on site, and the project applicant/developer would be required to pay the City's PFF. Payment

would be determined by the City based on the presented plans for the site. As described above, developer payment towards the City's PFF would go towards the acquisition and development of local and community park facilities throughout the City to offset the demand on public park space. With payment of the PFF and provision of the proposed on-site open space, impacts related to recreation would be less than significant.

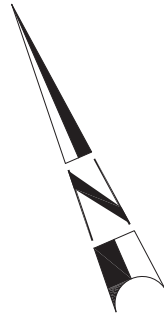
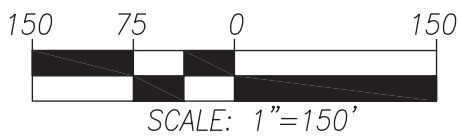
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**PROVIDED OPEN SPACE TABULATION**

|  | LEGEND | TOTAL PROVIDED (SF) | TOTAL REQUIRED (SF) |
|--|--------|---------------------|---------------------|
| TOTAL COMMON OPEN SPACE AREA                   |        | 186,400             | N/A                 |
| COMMON OPEN SPACE AREA W/GRADES 10% OR GREATER |        | 11,040              | N/A                 |
| COMMON OPEN SPACE AREA W/GRADES LESS THAN 10%  |        | 173,380             | N/A                 |
| RECREATION AREAS                               |        | 39,877              | N/A                 |
| PRIVATE OPEN SPACE                             |        | 22,450              | N/A                 |
| PRIVATE DRIVEWAY/PARKING DECK AND PATIOS       |        | 187,600             | N/A                 |
| CONSERVATION OPEN SPACE (LOT A)                |        | 781,597             | N/A                 |



SOURCE Lundstrom Engineering and Surveying, Inc., 2023

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## 3.15 Transportation

This section describes the transportation impact analysis for the proposed Pacific Specific Plan Project (proposed project). It includes a description of existing traffic conditions, trip generation for the proposed project, traffic modeling, and identification of mitigation measures. The section is based on the Vehicle Miles Traveled (VMT) Analysis, prepared by Linscott, Law & Greenspan Engineers (LLG) dated January 26, 2023. The complete report is included as Appendix J to this Environmental Impact Report (EIR). A Local Transportation Analysis (LTA) was also prepared by LLG dated February 16, 2023, for informational purposes only as described below, and is included as Appendix K to this EIR.

The transportation impact analysis prepared for the proposed project is consistent with the objectives and requirements of the City of San Marcos’s General Plan Mobility Element, the City of San Marcos Transportation Impact Analysis Guidelines, and applicable provisions of the California Environmental Quality Act (CEQA), including disclosure of project impacts in both existing and cumulative horizon years.

Table 3.15-1 summarizes the project- and cumulative-level impact analyses, by threshold.

**Table 3.15-1. Transportation Summary of Impacts**

| Threshold of Significance   | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|---|-----------------------|-------------------------|----------------------------|
| No. 1 - Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.         | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2 – Conflict or be inconsistent with CEQA Guideline Section 15064.3, subdivision (b).   | Less than Significant | Less than Significant   | Less than Significant      |
| No. 3 - Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4 - Result in inadequate emergency access.  | Less than Significant | Less than Significant   | Less than Significant      |

### 3.15.1 Existing Conditions

This section describes the existing circulation and transportation system in the project area, as well as the methodology used to prepare the transportation analysis.

#### Project Location

The approximately 33.2-acre project site is an infill site located in the western portion of the City of San Marcos (City), at the northwest corner of South Las Posas Road and Linda Vista Drive. La Mirada Road abuts the site’s northern boundary and South Pacific Street abuts the site’s western boundary. The Grand Plaza shopping center is located directly across South Las Posas Road. Light industrial uses are adjacent to the site’s northern, southern, and western boundary, Bradley Park is located across from the site’s southwestern corner, and residential uses are located to the south and west of Bradley Park. Surrounding land uses outside of the immediately adjacent

industrial and commercial land uses include designated parks, single and multifamily residential, and schools/educational facilities. The closest freeway is State Route (SR) 78, located approximately 0.44 miles north of the project site.

### Existing Street Network

Figure 3.15-1, Existing Traffic Conditions, depicts existing conditions within the transportation study area, including signalized intersections and lane configurations. The transportation study area evaluated for the proposed project includes the following intersections and street segments, based on the anticipated distribution of traffic to/from the project site. Note, the numbering associated with each intersection and segment are referenced throughout this EIR section.

#### Intersections:

1. Las Posas Road/SR-78 WB Ramps
2. Las Posas Road/Grand Avenue
3. Via Vera Cruz/Grand Avenue/SR-78 EB Ramps
4. Pacific Street/La Mirada Drive
5. Las Posas Road/La Mirada Drive
6. Rancho Santa Fe Road/Linda Vista Drive
7. Pacific Street/Linda Vista Drive
8. Las Posas Road/Linda Vista Drive
9. Pacific Street/San Marcos Boulevard
10. Las Posas Road/San Marcos Boulevard

#### Segments:

##### Las Posas Road

1. Descanso Avenue to SR-78 WB Ramps
2. SR-78 WB Ramps to Grand Avenue
3. Grand Avenue to La Mirada Drive
4. La Mirada Drive to Linda Vista Drive
5. Linda Vista Drive to San Marcos Blvd

##### Pacific Street

6. La Mirada Drive to Linda Vista Drive
7. Linda Vista Drive to San Marcos Blvd

##### La Mirada Drive

8. Pacific Street to Las Posas Road

#### Linda Vista Drive

9. Rancho Santa Fe Road to Pacific Street
10. Pacific Street to Las Posas Road
11. Las Posas Road to Via Vera Cruz

#### San Marcos Boulevard

12. Pacific Street to Las Posas Road
13. Las Posas Road to Via Vera Cruz

The following project driveways are also included in the evaluation:

#### Project Driveways:

- A. La Mirada Drive/Project Driveway (west)
- B. La Mirada Drive/Project Driveway (central)
- C. La Mirada Drive/Project Driveway (east)
- D. Linda Vista Drive/Project Driveway (west)
- E. Linda Vista Drive/Project Driveway (east)

The principal roadways in the project study area are described briefly below. Roadway classification was determined from a review of the *City of San Marcos General Plan Mobility Element* and information gathered from field observations.

**Las Posas Road** is currently constructed as a six-lane divided roadway between the SR-78 westbound ramps and Grand Avenue, a five-lane divided roadway between Grand Avenue and La Mirada Drive, a four-lane divided roadway between La Mirada Drive and Linda Vista Drive, and a four-lane undivided roadway with a two-way left-turn (TWLT) lane between Linda Vista Drive and San Marcos Boulevard. The posted speed limit is 45 mph. On-street parking is prohibited. Class II bike lanes are provided. Las Posas Road is classified as a Four-Lane+ Arterial between SR-78 westbound ramps and San Marcos Boulevard.

**Grand Avenue** is constructed as a four-lane undivided roadway with a TWLT lane between Via Vera Cruz and Rancho Santa Fe Road. The posted speed limit is 40 mph. On-street parking is prohibited. Only 350 feet of Class II bike lanes are provided on both sides of the roadway. Grand Avenue is classified as a four-lane Arterial between Via Vera Cruz and Rancho Santa Fe Road.

**Via Vera Cruz** is constructed as a four-lane roadway between Grand Avenue and Linda Vista Drive with a TWLT lane or turn pockets depending on the location. The posted speed limit is 40 mph between Grand Avenue and San Marcos Boulevard. On-street parking is prohibited. Class II bike lanes are provided. Via Vera Cruz is classified as a four-lane Arterial between Grand Avenue and San Marcos Boulevard.

**Pacific Street** is constructed as a two-lane undivided roadway for its entire length from San Marcos Boulevard to north of Grand Avenue. The posted speed limit is 35 mph. On-street parking is generally allowed on both sides of the street. Sidewalks are generally not provided on Pacific Street within the study area and there are no bicycle facilities. Pacific Street is classified as a Major Road between Grand Avenue and San Marcos Boulevard.

**La Mirada Drive** is constructed as a two-lane undivided roadway between Rancho Santa Fe Road and Las Posas Road. On-street parking is generally allowed on both sides of the street. The posted speed limit is 35 mph. Sidewalks are generally not provided on La Mirada Drive within the study and there are no bicycle facilities. La Mirada Drive is classified as a Major Road between Rancho Santa Fe Road and Las Posas Road.

**Rancho Santa Fe Road** is currently constructed as a four to six-lane divided roadway with left turn pockets lanes between Grand Avenue and San Marcos Boulevard. The posted speed limit is 40 mph. On-street parking is prohibited. Class II bike lanes are provided. Rancho Santa Fe Road is classified as a six-lane Arterial between Grand Avenue and West San Marcos Boulevard.

**Linda Vista Drive** is currently constructed as a three-lane undivided roadway with a TWLT lane between Rancho Santa Fe Road and Las Posas Road and a four-lane undivided roadway between Las Posas Road and Via Vera Cruz. The posted speed limit is 40 mph. On-street parking is generally provided between Rancho Santa Fe Road and Las Posas Road. Class II Bike lanes are only provided between Rancho Santa Fe Road and Pacific Street on the north side of Linda Vista Drive. Linda Vista Drive is classified as a four-lane Arterial between Rancho Santa Fe and Las Posas Road.

**San Marcos Boulevard** is constructed as a four-lane divided roadway between Pacific Street and Via Vera Cruz. The posted speed limit is 45 mph. On-street parking is prohibited. Class II bike lanes are provided between Pacific Street and Grand Avenue. San Marcos Boulevard is classified as a Multi-way Boulevard between Pacific Street and Via Vera Cruz.

### Existing Traffic Volumes

Table 3.15-2 summarizes the average daily traffic volumes (ADTs) for the study area segments based on counts conducted on March 24 and 25, 2021. Counts at the study intersections, including bicycle and pedestrian counts, were conducted on March 23, 2021, between 7:00 a.m. and 9:00 a.m. and 4:00 p.m. and 6:00 p.m.. As described in the VMT Analysis prepared for the project (Appendix J), traffic volume counts may have been artificially depressed due to restrictions and limitations on business, school, and other activities associated with the coronavirus (COVID-19) pandemic. Therefore, current counts were compared to traffic data collected prior to 2020, prior to the onset of COVID-related restrictions. The results of that comparative analysis are described further below.

The following conditions are noted specifically with respect to school activity and re-opening at the time of count collection. San Marcos Unified School District secondary students returned to campuses beginning March 23, 2021. San Marcos High School is located approximately 0.5 miles from the southeastern edge of the project study area and contributes to traffic volumes to portions of the study area. This partial reopening is captured in the March 23 and March 25, 2021, traffic counts.

Palomar College is located just beyond the northern edge of the project study area and contributes to traffic volumes to portions of the study area. Most courses during the Spring 2021 semester beginning February 1, 2021, were conducted online, although a limited number of programs have face-to-face courses and there are limited on-campus student service available. This limited activity is captured in the above-referenced traffic counts.

Overall, March 2021 traffic volumes were consistently lower than the most recent pre-pandemic traffic counts by a range of 5% to 40%, depending on the location. The weighted average throughout the project study area was calculated to be 28% below pre-pandemic conditions.

To account for this difference, March 2021 traffic counts were adjusted upward to take account of the reduced traffic levels on a location-specific basis similar to future traffic volume forecasting using ADT volumes and the existing (pre-COVID) relationship between ADT and peak hour volumes. Where pre-COVID ADT volumes were not available, the average difference for the overall study area (28% above March 2021 counts) was used in the forecast. Pre-COVID traffic data were available for the major roadways in the study area including Las Posas Road, Linda Vista Drive, and San Marcos Boulevard. The study area average was applied only to lower-volume roadways such as Pacific Street and La Mirada Drive where comparable pre-COVID data were not available. The adjusted existing baseline traffic volumes were checked for consistency between intersections where no driveways or roadways exist between intersections.

**Table 3.15-2. Existing Traffic Volumes**

| Street Segment                            | ADT <sup>a</sup> | Date <sup>b</sup> |
|---|------------------|-------------------|
| <b>Las Posas Road</b>                     |                  |                   |
| Descanso Avenue to SR-78 WB Ramps         | 38,300           | March 25, 2021    |
| SR-78 WB Ramps to Grand Avenue            | 43,600           | March 25, 2021    |
| Grand Avenue to La Mirada Drive           | 15,400           | March 25, 2021    |
| La Mirada Drive to Linda Vista Drive      | 14,500           | March 25, 2021    |
| Linda Vista Drive to San Marcos Boulevard | 11,400           | March 25, 2021    |
| <b>Pacific Street</b>                     |                  |                   |
| La Mirada Drive to Linda Vista Drive      | 4,800            | March 24, 2021    |
| Linda Vista Drive to San Marcos Boulevard | 4,500            | March 24, 2021    |
| <b>La Mirada Drive</b>                    |                  |                   |
| Pacific Street to Las Posas Road          | 3,600            | March 24, 2021    |
| <b>Linda Vista Drive</b>                  |                  |                   |
| Rancho Santa Fe Road to Pacific Street    | 12,600           | March 24, 2021    |
| Pacific Street to Las Posas Road          | 9,200            | March 24, 2021    |
| Las Posas Road to Via Vera Cruz           | 6,500            | March 25, 2021    |
| <b>San Marcos Boulevard</b>               |                  |                   |
| Pacific Street to Las Posas Road          | 39,600           | March 25, 2021    |
| Las Posas Road to Via Vera Cruz           | 35,400           | March 25, 2021    |

**Source:** Appendix J.

**Notes:** ADT = average daily traffic volume; SR = State Route.

<sup>a</sup> Average Daily Traffic Volumes (rounded up to the nearest 100).

<sup>b</sup> Counts collected in March 2021 were adjusted based on comparison with pre-COVID traffic data as described above and in the VMT Analysis (Appendix J).

### Existing Transit Conditions

The North County Transit District (NCTD) provides public transportation within the City and the County of San Diego for Coaster rail service, SPRINTER light rail service, and Breeze bus service. SPRINTER service operates between Escondido and Oceanside, with connections to Interstate 5 and the Coaster rail service operating out of the City of Oceanside. The NCTD operates the Palomar College Station SPRINTER and Breeze transit station located approximately 0.8 miles from the proposed project's La Mirada Drive entrance. Transit service is provided to the project area via NCTD bus routes 347 and 445.

**Route 347** provides bus service between Cal State San Marcos and Palomar College, with stops within the study area along San Marcos Boulevard, Via Vera Cruz, and Las Posas Road. This route provides a direct connection to Palomar College Station with transfers to SPRINTER, Route 304, and Route 305 bus service. The route operates hourly between the hours of 5:00 a.m. and 8:00 p.m., Monday through Friday, and between 7:30 a.m. and 7:30 p.m. on Saturday.

**Route 445** provides bus service between Palomar College and Carlsbad Poinsettia Station with stops within the study area along Las Posas Road and San Marcos Boulevard. This route provides a direct connection to Palomar College Station with transfers to SPRINTER, Route 304, and Route 305 bus service, and to Poinsettia Station with transfers to COASTER service. The route operates hourly between the hours of 6:30 a.m. and 5:00 p.m., Monday through Friday. This route is not in operation during the weekends.

The project site is located within 0.25 miles from two bus stops serving both Route 347 and Route 445 located along Las Posas Road. The closest bus stops to the project site are located near the intersection of Las Posas Road/La Mirada Drive and the intersection of Las Posas Road/Linda Vista Drive on both sides of the street. The project site is also approximately 1 mile from Palomar College Station.

At the intersection of Las Posas Road/La Mirada Drive, the bus stop in the northbound direction provides route signage, route designations, seating with shade, and a trash receptacle, and in the southbound direction the stop provides route signage only. At the intersection of Las Posas Road/Linda Vista Drive, the bus stop in the northbound direction provides route signage, route designation, seating with shade, and a trash receptacle, and in the southbound direction it provides route signage only.

### Existing Bicycle Network

As previously noted, Class II bike lanes are provided within the study area on the following study area street segments:

- Las Posas Road, from SR-78 to San Marcos Boulevard (both sides)
- Grand Avenue, from Rancho Santa Fe Road to Las Posas Road (both sides)
- Linda Vista Drive, from Rancho Santa Fe Road to Pacific Street (north side)
- San Marcos Boulevard, from Pacific Street to Via Vera Cruz (both sides)
- Via Vera Cruz, from Grand Avenue to San Marcos Boulevard (both sides)
- Rancho Santa Fe Road, from Grande Avenue to San Marcos Boulevard (both sides)

No other bicycle facilities are currently constructed within the study area.

### Existing Pedestrian Conditions

Pedestrian sidewalks are generally provided throughout the study area, except for the following:

- La Mirada Drive, from Rancho Santa Fe Road to Las Posas Road (both sides)
- Pacific Street, from Grand Avenue to San Marcos Boulevard (both sides)
- Linda Vista Drive, from Rancho Santa Fe Road to Las Posas Road (north side)



Pedestrian crossings are provided in all directions at the intersections of South Rancho Santa Fe Road/Linda Vista Drive, Las Posas Road/La Mirada Drive, Las Posas Road/Linda Vista Drive and Las Posas Road/San Marcos Boulevard. Pedestrian crossings are prohibited at the following locations:

- Las Posas Road/SR-78 WB Ramps (across the north and south legs)
- Las Posas Road/Grand Avenue (across the north leg)
- Grand Avenue/Via Vera Cruz/SR-78 EB Ramps (across the north, east, and west legs)
- San Marcos Boulevard/Pacific Street (across the east leg)

## Methodology

### Local Transportation Analysis Approach and Methodology

The City of San Marcos requires preparation of a local transportation analysis for projects generating more than 1,000 daily vehicle trips or more than 100 peak hour vehicle trips (if consistent with the latest version of the City's General Plan), or, if inconsistent with the City's General Plan, those projects, generating at least 500 daily vehicle trips or at least 50 peak hour vehicle trips. The proposed project is estimated to generate 2,694 average daily trips. Therefore, a local transportation analysis is required for the proposed project. The analysis is to include analyses based on level of service (LOS), and consistency with programs addressing the circulation system.

Under CEQA, LOS or other measures of vehicle capacity or traffic congestion (i.e., traffic delay) are no longer considered in evaluating whether a significant impact on the environment would occur; therefore, the LOS analysis referred to in this section and outlined in Appendix K to this EIR, is for information purposes only. Similarly, trip generation rates and distribution information related to the LOS analysis also is presented for information purposes only.

As of July 1, 2020, CEQA requires that the potential environmental impacts associated with vehicle travel be assessed using a VMT metric. VMT is calculated, generally, by multiplying the number of daily vehicle trips generated by a project by the number of miles traveled. As such the potential CEQA environmental impact of the proposed project in terms of vehicle trips is analyzed in terms of VMT below, based on the VMT Analysis prepared for the project (Appendix J).

### Vehicles Miles Traveled Analysis

As provided in CEQA Public Resources Code Section 21099(b)(2), following certification of CEQA Guidelines Section 15064.3, which occurred in December 2018, "automobile delay, as described solely by [LOS] or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to" CEQA. Rather, and as provided in CEQA Guidelines Section 15064.3, VMT is now considered the most appropriate measure of transportation impacts. As such, the analysis presented below utilizes VMT as the measure to determine project impacts related to transportation facility operations.

A VMT analysis was prepared based on the City of San Marcos *Transportation Impact Analysis Guidelines*, November 16, 2020 (City TIAG). The requirement to prepare a detailed transportation VMT analysis applies to all land development projects except for those that meet at least one of the provided screening criteria. A project that meets at least one of the screening criteria listed below would be considered to have a less-than-significant impact due to the project or location characteristics.

1. *Small Projects* (less than 110 daily vehicle trips)
2. *Affordable Housing* (100% deed restricted)

3. Local Serving Retail and Public Facilities (50,000 square feet gross floor area or less)
4. Adjacency to High-Quality Transit
5. Map-Based Screening (projects located in VMT efficient areas; limited to projects generating fewer than 2,400 ADT)

Based on the project site location, land use characteristics, and trip generation of the proposed project, none of the above listed screening criteria are anticipated to be applicable and therefore a detailed VMT analysis is required. This project analysis uses the VMT metric and impact thresholds developed by the City’s TIAG, which provides a significant impact will occur if the project generates VMT per resident exceeding a level of 15% below the existing countywide average. Project VMT modeled results are included as part of Section 3.15.4, Project Impact Analysis.

### Analysis of Existing Conditions

#### Peak Hour Intersection Levels of Service

Table 3.15-3 summarizes the peak hour intersection operations under existing conditions. As seen in Table 3.15-3, study intersection #3 (Via Vera Cruz/Grand Avenue/SR-78 EB Ramps) operates at LOS F during the PM peak hour, and intersection #7 (Pacific Street/Linda Vista Drive) operates at LOS F during the PM peak hour. As explained above, LOS information is provided as part of the LTA, not in support of the CEQA analysis. LOS or other measures of vehicle capacity or traffic congestion are no longer considered in evaluating whether a significant impact on the environment would occur. For informational purposes, trip generation rates and distribution information are provided from the LTA (Appendix K). The potential environmental impact of the proposed project in terms of vehicle trips is analyzed in terms VMT.

**Table 3.15-3. Existing Intersection Operations**

| Intersection                              | Control Type      | Peak Hour | Existing           |                  |
|---|-------------------|-----------|--------------------|------------------|
|   |                   |           | Delay <sup>a</sup> | LOS <sup>b</sup> |
| 1. Las Posas Rd/SR-78 WB Ramps            | Signal            | AM        | 34.4               | C                |
|   |                   | PM        | 15.6               | B                |
| 2. Las Posas Rd/Grand Ave                 | Signal            | AM        | 32.2               | C                |
|   |                   | PM        | 42.8               | D                |
| 3. Via Vera Cruz/Grand Ave/SR-78 EB Ramps | Signal            | AM        | >80.0              | F                |
|   |                   | PM        | 66.8               | E                |
| 4. Pacific St/La Mirada Dr                | AWSC <sup>c</sup> | AM        | 9.0                | A                |
|   |                   | PM        | 10.7               | B                |
| 5. Las Posas Rd/La Mirada Dr              | Signal            | AM        | 17.9               | B                |
|   |                   | PM        | 39.7               | D                |
| 6. Rancho Santa Fe Rd/Linda Vista Dr      | Signal            | AM        | 36.1               | D                |
|   |                   | PM        | 49.1               | D                |
| 7. Pacific St/Linda Vista Dr              | AWSC              | AM        | 14.8               | B                |
|   |                   | PM        | 66.9               | F                |
| 8. Las Posas Rd/Linda Vista Dr            | Signal            | AM        | 29.9               | C                |
|   |                   | PM        | 42.9               | D                |
| 9. Pacific St/San Marcos Blvd             | Signal            | AM        | 7.9                | A                |
|   |                   | PM        | 9.3                | A                |

**Table 3.15-3. Existing Intersection Operations**

| Intersection                    | Control Type | Peak Hour | Existing           |                  |
|---------------------------------|--------------|-----------|--------------------|------------------|
|                                 |              |           | Delay <sup>a</sup> | LOS <sup>b</sup> |
| 10.Las Posas Rd/San Marcos Blvd | Signal       | AM        | 34.7               | C                |
|                                 |              | PM        | 33.5               | C                |

Source: Appendix J.

**Notes:**

<sup>a</sup> Average delay expressed in seconds per vehicle.

<sup>b</sup> Level of Service.

AWSC = All-Way Stop Controlled intersection.

| Signalized           |     | Unsignalized         |     |
|----------------------|-----|----------------------|-----|
| Delay/LOS Thresholds |     | Delay/LOS Thresholds |     |
| Delay                | LOS | Delay                | LOS |
| 0.0 ≤10.0            | A   | 0.0 ≤10.0            | A   |
| 10.1 to 20.0         | B   | 10.1 to 15.0         | B   |
| 20.1 to 35.0         | C   | 15.1 to 25.0         | C   |
| 35.1 to 55.0         | D   | 25.1 to 35.0         | D   |
| 55.1 to 80.0         | E   | 35.1 to 50.0         | E   |
| ≥80.1                | F   | ≥50.1                | F   |

Intersection Queuing

Table 3.15-4 presents the existing 95th percentile peak hour queue lengths for intersection turn pockets where the Project adds traffic within the study area. As shown in Table 3.15-4, all existing peak hour queues are contained within existing turn pockets except for:

- Intersection #1. La Posas Road/SR-78 Westbound Ramps
  - Westbound left-turn (AM peak hour)
  - Northbound left-turn (PM peak hour)
- Intersection #3. Via Vera Cruz/SR-78 Eastbound Ramps
  - Southbound right-turn (AM/PM peak hour)
  - Eastbound left-turn (AM/PM peak hour)
- Intersection #5. Las Posas Road/La Mirada Drive
  - Eastbound left-turn (PM peak hour)
- Intersection #8. Las Posas Road/Linda Vista Drive
  - Eastbound left-turn (PM peak hour)
- Intersection #10. Las Posas Road/San Marcos Boulevard
  - Southbound right-turn (AM/PM peak hour)
  - Eastbound left-turn (AM/PM peak hour)

**Table 3.15-4. Existing Intersection Queuing**

| Intersection                    | Movement <sup>a</sup> | Storage (ft) | Peak Hour | Existing                |
|---------------------------------|-----------------------|--------------|-----------|-------------------------|
|                                 |                       |              |           | Queue (ft) <sup>b</sup> |
| 1. Las Posas Rd/SR-78 WB Ramps  | WBL                   | 340          | AM        | <b>464</b>              |
|                                 |                       |              | PM        | 176                     |
|                                 | NBL                   | 300          | AM        | 190                     |
|                                 |                       |              | PM        | <b>303</b>              |
| 2. Las Posas Rd/Grand Ave       | WBL                   | 200          | AM        | 57                      |
|                                 |                       |              | PM        | 37                      |
| 3. Via Vera Cruz/SR-78 EB Ramps | SBR                   | 220          | AM        | <b>964</b>              |
|                                 |                       |              | PM        | <b>752</b>              |
|                                 | EBL                   | 140          | AM        | <b>150</b>              |
|                                 |                       |              | PM        | <b>234</b>              |
| 4. Las Posas Rd/La Mirada Dr    | NBL                   | 250          | AM        | 34                      |
|                                 |                       |              | PM        | 57                      |
|                                 | EBL                   | 110          | AM        | 59                      |
|                                 |                       |              | PM        | <b>199</b>              |
|                                 | EBR                   | 110          | AM        | 0                       |
|                                 |                       |              | PM        | 0                       |
| 5. Las Posas Rd/Linda Vista Dr  | SBL                   | 130          | AM        | 97                      |
|                                 |                       |              | PM        | 95                      |
|                                 | NBL                   | 240          | AM        | 104                     |
|                                 |                       |              | PM        | 109                     |
|                                 | EBL                   | 170          | AM        | 168                     |
|                                 |                       |              | PM        | <b>392</b>              |
| 6. Pacific St/San Marcos Blvd   | EBL                   | 240          | AM        | 49                      |
|                                 |                       |              | PM        | 91                      |
| 7. Las Posas Rd/San Marcos Blvd | SBR                   | 240          | AM        | <b>299</b>              |
|                                 |                       |              | PM        | <b>413</b>              |
|                                 | SBL                   | 240          | AM        | 85                      |
|                                 |                       |              | PM        | 145                     |
|                                 | NBL                   | 670          | AM        | 17                      |
|                                 |                       |              | PM        | 47                      |
|                                 | EBR                   | 240          | AM        | <b>411</b>              |
|                                 |                       |              | PM        | <b>679</b>              |

**Notes:** ft = feet.

**BOLD** indicates queue is calculated to exceed available storage.

<sup>a</sup> Direction/turn lane (e.g., SBR = southbound right-turn lane).

<sup>b</sup> 95th percentile queue length.

### Daily Street Segment Levels of Service

Table 3.15-4 summarizes the segment operations under existing conditions. As seen in Table 3.15-5, study segment #12 (San Marcos Boulevard: Pacific Street to Las Posas Road) and study segment #13 (San Marcos Boulevard: Las Posas Road to Via Vera Cruz) currently operate at LOS E.

**Table 3.15-5. Existing Street Segment Operations**

| Street Segment                       | Classification                           | Capacity (LOS E) <sup>a</sup> | ADT    | LOS | V/C   |
|--------------------------------------|--|-------------------------------|--------|-----|-------|
| <b>Las Posas Road</b>                |  |                               |        |     |       |
| 1. Descanso Ave to SR-78 WB Ramps    | 6-Lane Prime Arterial                    | 60,000                        | 38,300 | C   | 0.638 |
| 2. SR-78 WB Ramps to Grand Ave       | 6-Lane Prime Arterial                    | 60,000                        | 43,600 | C   | 0.727 |
| 3. Grand Ave to La Mirada Dr         | 4-Lane Major Arterial                    | 40,000                        | 15,400 | B   | 0.385 |
| 4. La Mirada Dr to Linda Vista Dr    | 4-Lane Major Arterial                    | 40,000                        | 14,500 | A   | 0.363 |
| 5. Linda Vista Dr to San Marcos Blvd | 4-Lane Secondary Arterial                | 30,000                        | 11,400 | B   | 0.380 |
| <b>Pacific Street</b>                |  |                               |        |     |       |
| 6. La Mirada Dr to Linda Vista Dr    | 2-Lane Collector (Commercial/Industrial) | 8,000                         | 4,800  | C   | 0.600 |
| 7. Linda Vista Dr to San Marcos Blvd | 2-Lane Collector (Commercial/Industrial) | 8,000                         | 4,500  | C   | 0.563 |
| <b>La Mirada Drive</b>               |  |                               |        |     |       |
| 8. Pacific St to Las Posas Rd        | 2-Lane Collector (Commercial/Industrial) | 8,000                         | 3,600  | B   | 0.450 |
| <b>Linda Vista Drive</b>             |  |                               |        |     |       |
| 9. Rancho Santa Fe Rd to Pacific St  | 2-Lane Collector (Continuous TWLTL)      | 15,000                        | 12,600 | D   | 0.840 |
| 10. Pacific St to Las Posas Rd       | 4-Lane Secondary Arterial                | 30,000                        | 9,200  | A   | 0.307 |
| 11. Las Posas Rd to Via Vera Cruz    | 4-Lane Collector (No TWLTL)              | 15,000                        | 6,500  | B   | 0.433 |
| <b>San Marcos Boulevard</b>          |  |                               |        |     |       |
| 12. Pacific St to Las Posas Rd       | 4-Lane Major Arterial                    | 40,000                        | 39,600 | E   | 0.990 |
| 13. Las Posas Rd to Via Vera Cruz    | 4-Lane Major Arterial                    | 40,000                        | 35,400 | E   | 0.885 |

Source: Appendix J.

**Notes:**

ADT = Average Daily Traffic Volumes; Level of Service = LOS; V/C = Volume to Capacity; TWLTL = two-way left-turn lane.

<sup>a</sup> Capacities based on based on the City of San Marcos' Roadway Classifications, Capacity, and LOS (see Appendix J).

### Near-Term (Interim Year 2025) Conditions

This section describes Near-Term (Interim Year 2025) roadway network and traffic volume conditions. Year 2025 was selected based on the San Diego Association of Governments (SANDAG) pre-established interim year scenarios, as the closest to the opening year of the project. The existing street system as illustrated in Figure 3-1 of the VMT Analysis (Appendix J) is assumed for Near-Term conditions with no notable improvements within the study area. To forecast future traffic volumes for Near-Term (Interim Year 2025) conditions, the SANDAG Series 14 Model was utilized. The forecasted ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes.

Several other traffic engineering principles and factors such as the K-factor (the proportion of daily volume that occurs during the peak period) and D-factor (the directional split of the traffic volumes) were also considered in the

forecast analysis. The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and were compared to existing volumes for accuracy.

## 3.15.2 Regulatory Setting

The following provides a general description of the applicable regulatory requirements and guidelines for the project area.

### State

#### California Department of Transportation

The California Department of Transportation (Caltrans) is the primary state agency responsible for transportation issues. One of its duties is the construction and maintenance of the state highway system. Caltrans has established standards for roadway traffic flow and has developed procedures to determine if intersections require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

#### Assembly Bill 1358 – California Complete Streets Act of 2008

The California Complete Streets Act of 2008 (Assembly Bill 1358) requires circulation elements as of January 1, 2011, to accommodate the transportation system from a multimodal perspective, including public transit, walking, and biking.

#### Senate Bill 743, CEQA Guidelines Update

In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including CEQA Guidelines Section 15064.3, which implements Senate Bill (SB) 743. SB 743 required the development of new metrics for analyzing transportation impacts under CEQA in order to provide an alternative to the LOS metric. Under SB 743, measurements of transportation impacts may include VMT,<sup>1</sup> vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. SB 743 further directed that unless otherwise provided, a project's effect on automobile delay shall no longer be considered a significant environmental impact under CEQA.<sup>2</sup> Under CEQA Guidelines Section 15064.3, VMT was determined to be the most appropriate measure of transportation impacts.

The justification for this paradigm shift is that when significant impacts are identified under a LOS and delay-based analysis, the mitigation is often to provide road improvements, which increase roadway capacity that inherently accommodates more vehicular traffic resulting in additional greenhouse gas emissions. In contrast, under a VMT based analysis, mitigation typically takes the form of strategies intended to reduce vehicle traffic, rather than accommodate such traffic, thereby reducing vehicle traffic and associated emissions.

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<sup>1</sup> VMT refers to the amount and distance of automobile travel attributable to a project.

<sup>2</sup> CEQA, Public Resources Code section 21099, subsection (b). SB 743 also amends congestion management law to allow cities and counties to opt out of LOS standards within certain infill areas (OPR 2023).

Lead agencies were tasked to transition to the new guidelines and establish thresholds for transportation impacts no later than July 1, 2020. The City adopted its VMT thresholds for CEQA purposes in November 2020 as part of the City's TIAG, which, relevant to this project proposing a residential land use, provides that a significant impact will occur if a project generates VMT per resident exceeding a level of 15% below the existing countywide average. The City's TIAG also provide VMT thresholds for other land use types including employment projects (office and industrial), retail uses, mixed-use projects, and redevelopment projects.

#### Local

##### SANDAG's San Diego Forward: The Regional Plan

The SANDAG San Diego Forward: The Regional Plan (Regional Plan) combines the region's two most important existing planning documents—the Regional Comprehensive Plan and the Regional Transportation Plan and its Sustainable Communities Strategy (SCS). The Regional Comprehensive Plan, adopted in 2004, laid out key principles for managing the region's growth while preserving natural resources and limiting urban sprawl. The plan covered eight policy areas, including urban form, transportation, housing, healthy environment, economic prosperity, public facilities, our borders, and social equity. These policy areas were addressed in the 2050 Regional Transportation Plan/SCS and are now fully integrated into the Regional Plan.

The SANDAG Board of Directors adopted the 2021 Regional Plan on December 10, 2021. The 2021 Regional Plan is a 30-year plan that considers growth, movement, and residential location around the region. The 2021 Regional Plan combines the regional Transportation Plan, SCS, and Regional Comprehensive Plan. As such, the 2021 Regional Plan must comply with specific state and federal mandates. These include an SCS, per California SB 375, that achieves GHG emissions reduction targets set by the California Air Resources Board, compliance with federal civil rights requirements (Title VI); environmental justice considerations; air quality conformity; and public participation (SANDAG 2021).

##### Congestion Management Program

The 2008 Congestion Management Program (CMP) for San Diego County was developed to meet the requirements of Section 65089 of the California Government Code. Since that time, the local agencies within San Diego County elected to opt out of the CMP requirements, as allowed within the Government Code. As such, there are no CMP-specific requirements associated with this project. However, to ensure the region's continued compliance with the federal congestion management process, SANDAG has prepared *San Diego Forward: The 2021 Regional Plan*. The Regional Plan incorporates performance monitoring and measurement of the regional transportation system, multimodal alternatives to single-occupancy vehicles, land use impact analysis, congestion management tools, and Integration with the Regional Transportation Improvement Program process.

##### City of San Marcos Bikeway Master Plan

The 2016 Bikeway Master Plan is an update to the City's original master plan adopted in 2001. Goals of the master plan were to obtain State Bicycle Transportation Account grant funds and improve bicycle facilities throughout the City for safer routes to school, connections to adjacent cities and incorporate an environmental inventory analysis. One of the goals of the master plan was to connect the City's trails to bicycle facilities to complete a safe and enjoyable trail and bikeway system.

## City of San Marcos General Plan

### Land Use and Community Design Element

The Land Use and Community Design Element of the General Plan identifies specific policies related to congestion management. Those that are applicable to the proposed project are identified below.

Policy LU-3.7: Require new development to prepare traffic demand management programs.

Policy LU-3.8: Require new development and discretionary actions to annex into a Congestion Management Community Facilities District.

### Mobility Element

The Mobility Element of the General Plan identifies specific goals and policies related to an efficient circulation system, traffic calming and safety, and alternative modes of travel. Those that are applicable to the proposed project are identified below.

Goal M-1: Provide a comprehensive multimodal circulation system that serves the City land uses and provides for the safe and effective movement of people and goods.

Policy M-1.1: Safely and efficiently accommodate traffic generated by development and redevelopment associated with implementation of the General Plan Land Use Policy Map.

Policy M-1.2: Require new development to finance and construct internal adjacent roadway circulation and City-wide improvements as necessary to mitigate project impacts, including roadway, transit, pedestrian and bicycle facilities.

Policy M-1.3: Require new developments to prepare and implement Transportation Demand Management (TDM) programs to minimize vehicle trip generation and promote alternative modes of travel within the City.

Policy M-1.4: Utilize multi-modal LOS techniques to evaluate transportation facilities. For identified prioritized modes (based on facility typology), provide the following minimum LOS as shown in Table 3-4 of the Mobility Element:

- LOS D or better for Vehicles as a prioritized mode
  - Generally, provides facilities that have minimum vehicle congestion during peak periods. Most motorists are delayed less than 55 seconds at a signal (or less than one signalized cycle).
- The City shall allow for flexible LOS where warranted (e.g., accepting a lower LOS than identified above).

Policy M-1.6: Work to improve connectivity within the City by closing gaps in the existing bicycle, pedestrian, trail, transit, and roadway network. Work with new development to provide connectivity and redundancy in the mobility network.



Policy M-1.7: Strive to ensure that streets within San Marcos shall be complete streets where feasible; thereby providing accessibility, safety, connectivity, and comfort for all modes and users of the system. Appropriate new local streets and Main Streets will prioritize pedestrian and bicycle users through the corridor.

Goal M-2: Protect neighborhoods by improving safety for all modes of travel and calming traffic where appropriate.

Policy M-2.1: Work with new development to design roadways that minimize traffic volumes and/or speed, as appropriate within residential neighborhoods; while maintaining the City's desire to provide connectivity on the roadway network.

Policy M-2.3: Consider roundabouts, as appropriate, as an intersection control device with demonstrated air quality, traffic efficiency, and safety benefits.

Goal M-3: Promote and encourage use of alternative transportation modes, including transit, bicycles, neighborhood electric vehicles (NEVs), and walking, within the City.

Policy M-3.1: Develop an integrated, multimodal circulation system that accommodates transit, bicycles, pedestrians, and vehicles; provides opportunities to reduce air pollution and greenhouse gas emissions; and reinforces the role of the street as a public space that unites the City.

Policy M-3.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians through design, maintenance and law enforcement. Install wider sidewalks and curb extensions at pedestrian crossings (bulb outs) where appropriate.

Policy M-3.3: Provide a pedestrian and bicycle network in existing and new neighborhoods that facilitates convenient and continuous pedestrian and bicycle travel free of major impediments and obstacles.

Policy M-3.5: Ensure that streets in areas with high levels of pedestrian activity (such as employment centers, residential areas, mixed use areas, and schools) support safe pedestrian travel by providing detached sidewalks, bulb-outs, enhanced pedestrian crossings, pedestrian bridges, and medians.

Policy M-3.9: Create a pleasant walking environment for roadway typologies where pedestrian travel is prioritized. This includes providing shade trees, landscaping, benches, pedestrian-scale lighting, way finding signage, transit shelters, and other appropriate amenities.

### 3.15.3 Thresholds of Significance

Appendix G of the CEQA Guidelines provides thresholds for determining significant environmental impacts. A project may be deemed to have a significant impact on transportation/traffic if it would:

Threshold No. 1: Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Threshold No. 2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Threshold No. 3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment).

Threshold No. 4: Result in inadequate emergency access.

### 3.15.4 Project Impact Analysis

The following discussion summarizes the findings of the LTA (Appendix K) as it relates to project trip generation, project trip distribution and assignment, Near-Term (Year 2025) Scenarios with and without the proposed project, and Horizon Year (Year 2050) Scenarios with and without the proposed project. The discussion herein supports the findings of the project impact analysis.

#### Project Trip Generation

As described in Chapter 2, Project Description, Location, and Environmental Setting, of this EIR, the project proposes development of 449 residential dwelling units under the proposed Specific Plan Area designation. To determine the traffic generation of the proposed project, SANDAG’s (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002) rates were applied to the proposed project. The trip generation rate for “Apartment (or any multifamily units more than 20 DU/acre)” was used based on the proposed project density of approximately 29.8 dwelling unit per acre (DU/acre) (including the proposed open space and habitat area, the project density would be approximately 13.5 DU/acre). SANDAG provides for a 5% daily trip reduction for land uses with transit access or near transit stations accessible within 0.25 miles. The site is located adjacent to transit service with bus stops located near both the north and south ends of the site along Las Posas Road. The project will also upgrade the existing bus stop along its frontage with enhanced amenities and include clear and direct access to bus stops in the site design. To provide a conservative analysis, however, no transit trip reduction was applied to the trip generation for this analysis.

Table 3.15-6 tabulates the total proposed project traffic generation. The proposed project is estimated to generate a total of 2,694 ADT with 216 AM peak hour trips (43 inbound and 173 outbound) and 242 PM peak hour trips (169 inbound and 73 outbound).

**Table 3.15-6. Proposed Project Trip Generation**

| Land Use                             | Size   | Daily Trip Ends (ADTs) |       | AM Peak Hour |              |        |     |       | PM Peak Hour |              |        |     |       |
|--------------------------------------|--------|------------------------|-------|--------------|--------------|--------|-----|-------|--------------|--------------|--------|-----|-------|
|                                      |        | Rate <sup>a</sup>      | ADT   | Rate         | In:Out Split | Volume |     |       | Rate         | In:Out Split | Volume |     |       |
|                                      |        |                        |       |              |              | In     | Out | Total |              |              | In     | Out | Total |
| Apartments (multifamily >20 du/acre) | 449 DU | 6/DU                   | 2,694 | 8%           | 20:80        | 43     | 173 | 216   | 9%           | 70:30        | 169    | 73  | 242   |

Source: Appendix J.

Notes: DU = dwelling unit.

Trip generation rate from SANDAG’s (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 (“SANDAG Brief Guide”).

## Project Trip Distribution and Assignment

Trip distribution is the process of determining traffic percentage splits on the regional and local roadway network. Trip distribution is determined based on the characteristics of the project and upon the general location of other land uses to which project trips would originate or terminate, such as employment, housing, schools, recreation, and shopping.

The traffic generated by the proposed project was distributed and assigned based on anticipated traffic patterns to and from the site, and the project site's proximity to state highways and arterials. The project will be served by three driveways located on La Mirada Drive, and one driveway on Linda Vista Drive. All driveways are assumed to provide full turning movements. An emergency-only access is proposed on Las Posas Road; no day-to-day project traffic was distributed to this driveway. The split of project traffic among each driveway was determined based on the number of dwelling units served by each access point.

Figure 7-1a in the LTA (Appendix K) shows the traffic distribution; Figure 7-1b shows the project driveway traffic distribution to provide additional clarity on the local distribution of trips on the streets immediately adjacent to the project site; Figure 7-2a and Figure 7-2b in the LTA (Appendix K) show the overall traffic and driveway traffic volumes; and Figure 7-3 shows the Near-Term + Proposed Project traffic volumes. Figure 3.15-2 of this EIR depicts the conceptual circulation plan for the project.

### Near-Term (Year 2025) Conditions and Scenarios

As described in Section 6.0 of the LTA (Appendix K), for Near-Term conditions (Interim Year 2025), the extension of Discovery Street from Bent Avenue/Craven Road to Twin Oaks Valley Road (four-lane arterial) is assumed to be complete by Year 2025. This network change is adjacent to the project study area and is included in the SANDAG Year 2025 interim year scenario model. Per the City of San Marcos Capital Improvement Program, this capital improvement project is funded with target completion in Fall 2023. However, it should be noted that based on a comparison of base year and Year 2025 forecast volumes, this roadway extension affects traffic volumes on existing portions of Discovery Street and Craven Road but does not substantially affect traffic patterns within the study area.

To forecast future traffic volumes for Near-Term (Interim Year 2025) conditions, the SANDAG Series 14 Model was utilized. The forecasted ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes.

Several other traffic engineering principles and factors such as the K-factor (the proportion of daily volume that occurs during the peak period) and D-factor (the directional split of the traffic volumes) were also considered in the forecast analysis (Appendix K). The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and were compared to existing volumes for accuracy.

As outlined in Section 8.0 of the LTA (Appendix K), Intersection #3 (Via Vera Cruz/Grand Avenue/SR-78 EB Ramps) and Intersection #7 (Pacific Street/Linda Vista Drive) are calculated to operate at LOS F in the near-term scenario without the proposed project. For segment operations in the near-term without the proposed project, Segment #9 (Linda Vista Drive: Rancho Santa Fe to Pacific Street), #12 (San Marcos Boulevard: Pacific Street to Las Posas Road), and #13 (San Marcos Boulevard: Las Posas Road to Via Vera Cruz) are calculated to operate at LOS E or F.

For the near-term with project scenario, with the addition of project traffic Intersection #3 and #7 are calculated to continue to operate at LOS F, and the project would result in a substantial effect to both of these intersections.

Table 8–1b in Appendix K presents the 95th percentile peak hour queue lengths for intersection turn pockets where the Project adds traffic within the study area for the Near-Term with Project condition. As shown in Table 8–1b, all Near-Term without Project peak hour queues are contained within existing turn pockets except for intersections #1, #3, #5, #8 and #10.

For the near-term plus project segment operations scenario, with the addition of project traffic, segments #9, #12, and #13 are calculated to continue to operate at LOS E or F. However, the project-related increase in volume to capacity (V/C) ratio for these street segments already operating at unacceptable LOS would be less than the threshold of 0.02, and therefore the project is not calculated to result in substantial effects to the study segments and no improvements would be required.

Please refer to Table 8-1a (Near-Term Intersection Operations) and 8-1b (near-term intersection queuing); and Table 8-2 (Near-Term Street Segment Operations) in Appendix K, which show intersection and street segment operations both with and without the proposed project.

### Horizon Year (Year 2050) Conditions and Scenarios

The Year 2050 street network in the SANDAG Series 14 forecast model includes changes to the roadway system in the vicinity of the study area including the planned extension of McMahr Road between San Marcos Boulevard and Discovery Street. For the purposes of the analysis in the LTA (Appendix K), this network addition is assumed in the long-term traffic volumes forecast but no changes to the study area roadway geometry or intersection control were assumed.

To forecast future traffic volumes for Horizon Year (Year 2050) conditions, the SANDAG Series 14 Model was utilized. The forecasted ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes. Several other traffic engineering principles and factors such as the K-factor (the proportion of daily volume that occurs during the peak period) and D-factor (the directional split of the traffic volumes) were also considered in the forecast analysis (see Appendix K for definitions). The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and were compared to existing volumes for accuracy.

As noted in the previous section, completion of the extension of McMahr Road between San Marcos Boulevard and Discovery Street was assumed in the traffic volume forecast. Traffic volumes associated with the project as described above, under Project Trip Distribution and Assignment, were added to Year 2050 baseline traffic volumes to arrive at Year 2050 + Project traffic.

As outlined in Section 10.0 of the LTA (Appendix K), Intersections #2 (Las Posas Road/Grand Avenue), #3 (Via Vera Cruz/Grand Avenue/SR-78 EB Ramps), #6 (Rancho Santa Fe Road/Linda Vista Drive), #7 (Pacific Street/Linda Vista Drive), and #10 (Las Posas Road/San Marcos Boulevard) are calculated to operate at LOS E or F in the Horizon Year Scenario without the project. For segment operations, Segment #6 (Pacific Street: La Mirada Drive to Linda Vista Drive), #9 (Linda Vista Drive: Rancho Santa Fe Road to Pacific Street), #12 (San Marcos Boulevard: Pacific Street to Las Posas Road), and #13 (San Marcos Boulevard: Las Posas Road to Via Vera Cruz) are calculated to operate at LOS E or F in the Horizon Year Scenario without the project.

In the Horizon Year plus project intersection analysis, Intersections #2, #3, #6, #7, and #10 are calculated to continue to operate at LOS E or F. Based on the established Level of Service Standards outlined in Section 3.15.1, Existing Conditions, the project is calculated to result in a substantial effect on Intersections #3 and #7, while

project-related change in delay at Intersections #2 and #10 is below the threshold of 2.0 seconds. For the Horizon Year plus project segment operations, with the addition of project traffic segments #6, #9, #12, and #13 are calculated to continue to operate at LOS E or F. Based on the established Level of Service Standards, the project is calculated to result in substantial effects to segment #6, while project related increase in V/C ratio at segments #9, #12, and #13 operating at LOS E or F is below the 0.02 threshold.

### Traffic Signal Warrants

Based on the analysis shown in Table 8-1 in Appendix K, Linda Vista Drive/South Pacific Street intersection is calculated to operate at LOS F in the near-term with Project conditions. Traffic signal warrant analysis has been completed to determine if a signal would be warranted at that intersection under future conditions.

Warrants were prepared for the Near-Term with Project scenarios. As outlined in Chapter 4C, "Traffic Control Signal Needs Studies," of the 2014 California Manual on Uniform Traffic Control Devices (California MUTCD), the peak hour warrant (Warrant 3) was analyzed.

The lane configurations at Linda Vista Drive/South Pacific Street are as follows:

- South Pacific Street (southbound): 1 shared left/thru/right-turn lane
- Linda Vista Drive (westbound): 1 left turn lane, 1 thru lane, 1 right turn lane
- South Pacific Street (northbound): 1 shared left/thru/right-turn lane
- Linda Vista Drive: 1 left turn lane, 1 thru lane, 1 right turn lane

Linda Vista Drive (westbound/eastbound) is the major street at this location.

Warrant 3 consists of two categories. The need for a traffic shall be considered if the criteria in either of the two categories are met. Category A requires three conditions to be met for the same 1 hour of an average day: (1) minor street delay exceeding 4 vehicle-hours, (2) minor street volume exceeding 100 vehicles per hour, and (3) total entering volume at the intersection exceeding 800 vehicles. Category B plots the AM and PM entering volumes on a linear graphic (Figure 4C-3 of the MUTCD) to determine if the volumes exceed the allowable thresholds. For the signal warrant to be met, either Category A or B must be satisfied.

Table 13-5 in Appendix K illustrates the two categories and summarize results for the Linda Vista Drive/South Pacific Street intersection under Near-Term with Project scenarios. Both Category A and Category B are satisfied under the Near-Term with Project scenario.

***Threshold No. 1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.***

The project site is located in an infill area with numerous bicycle, pedestrian, and transit facilities, as discussed above. Class II bike lanes are provided on Las Posas Road, from SR-78 to San Marcos Boulevard (both sides); Grand Avenue, from Rancho Santa Fe Road to Las Posas Road (both sides); Linda Vista Drive, from Rancho Santa Fe Road to Pacific Street (north side); and San Marcos Boulevard, from Pacific Street to Via Vera Cruz (both sides). Pedestrian sidewalks are generally provided throughout the area, with pedestrian crossings located at intersections surrounding the project site. The site is also served by existing transit.

The site is located in an area with moderately high employment density given the surrounding commercial and light industrial land uses. The well-developed commercial area along Las Posas Road immediately opposite the project site can serve the shopping and dining demand of future residents within easy walking distance. Schools, parks, and other facilities are also walkable/bikeable from the site. As discussed in Section 3.15.1, the project site is adjacent to bus stops serving two separate routes with connections to SPRINTER service at Palomar College Station.

As described above, in the Near-Term With Project scenario, with the addition of project traffic Intersections #3 and #7 are calculated to continue to operate at LOS F, and the project would result in a substantial effect to both of these intersections and roadway improvements would be required. For the near-term plus project segment operations scenario, with the addition of project traffic, segments #9, #12, and #13 are calculated to continue to operate at LOS E or F. However, the project-related increase in V/C ratio for these street segments already operating at unacceptable LOS would be less than the threshold of 0.02, and therefore the project is not calculated to result in substantial effects to the study segments and no improvements would be required.

As described above in the Horizon Year With Project scenario, the project is calculated to result in a substantial effect on Intersections #3 and #7, while project-related change in delay at Intersections #2 and #10 is below the threshold of 2.0 seconds. Roadway improvements would be required to address effects on Intersections #3 and #7. For the Horizon Year plus project segment operations, with the addition of project traffic segments #6, #9, #12, and #13 are calculated to continue to operate at LOS E or F. Based on the established Level of Service Standards, the project is calculated to result in substantial effects to segment #6, while project related increase in V/C ratio at segments #9, #12, and #13 operating at LOS E or F is below the 0.02 threshold.

To address the Near-Term with Project and Horizon Year with Project effects described above, the following transportation improvements proposed by the LTA (Appendix K) would be required by condition of approval and incorporated into the proposed project to ensure adequate pedestrian, bicycle, and transit facilities are provided consistent with City policies and guidelines:

1. Provide a 6-foot sidewalk and Class II buffered bike lane along the project's frontage on Pacific Street.
2. Provide a 12-foot urban trail (shared use path) along the project's frontage on Linda Vista Drive.
3. Provide a 12-foot urban trail (shared use path) along the project's frontage on La Mirada Drive.
4. Provide transit stop amenities including bench, shelter, and trash can at the southbound stop at the intersection of Las Posas Road/La Mirada Drive located on the southwest corner of the intersection. Provide a bus turnout for this stop along the project frontage.

The following roadway improvements proposed by the LTA (Appendix K) would increase performance to acceptable or pre-project conditions under each scenario.

1. **Intersection #3. Via Vera Cruz/Grand Avenue/SR-78 EB Ramps** – Provide a fair share contribution for a dedicated southbound right turn lane on the SR-78 eastbound off-ramp. Given that this intersection operates at LOS E or worse under existing conditions and the deficiency is not directly caused by the Project, a fair share contribution is appropriate.

With the construction of a dedicated southbound right-turn lane, the intersection is calculated to operate at substantially better than pre-Project conditions in both Near- Term and Long-Term scenarios as shown in Table 13-1 and Table 13-2 of Appendix K.

Appendix O of Appendix K contains the Near-Term + Project and Long-Term + Project Improvements Intersection Analysis worksheets for all intersection improvements discussed in this section. The project fair share of 7.1% was calculated based on the project traffic effects at Intersection #3.

2. **Intersection #5. Las Posas Road/La Mirada Drive** – Provision of the recommended two-way left-turn on La Mirada Drive would provide additional functional storage for eastbound left-turn queues under 95th percentile peak queueing conditions. This would allow additional vehicle stacking to occur in the center turn lane without impeding eastbound through or right-turning traffic. Restripe the eastbound (La Mirada Drive) intersection approach to provide two left turn lanes and one shared through/right-turn lane and provide necessary signal modifications to accommodate new striping. This improvement will provide additional capacity and storage area for left turning traffic, which will reduce queues and, in conjunction with the recommended two-way left turn lane on La Mirada Drive, improve accessibility for existing and proposed Project driveways.

The overall intersection LOS will continue to be acceptable LOS D or better in both Near-Term and Long-Term scenarios as shown in Table 13–1 and Table 13–2 in Appendix K. Table 13–3 in Appendix K provides the Near-Term and Long-Term queue analysis illustrating the reduced queues provided by this improvement.

3. **Intersection #7. Pacific Street/Linda Vista Drive** – Provide a traffic signal with the following lane geometry:
  - Southbound – one left turn lane, one shared through/right turn lane
  - Westbound – one left turn lane, one shared through/right turn lane
  - Northbound – one left turn lane, one shared through lane, one/ right turn lane
  - Eastbound – one left turn lane, one through lane, one right turn lane

The traffic signal should provide protected left-turn phasing for all approaches. The traffic signal would provide LOS C or better operations under Near-Term with Project and Long-Term with Project conditions as shown in Table 13–1 and Table 13–2 of Appendix K.

4. **Intersection #8. Las Posas Road/Linda Vista Drive** – This intersection operates at acceptable LOS D or better with the addition of Project traffic and does not require improvements to enhance the LOS. However, in conjunction with the Urban Trail to be provided on Linda Vista Drive and to align with the proposed cross-section of Linda Vista Drive between Pacific Street and Las Posas Road the existing shared through/right-turn lane on the westbound approach will be converted to right turn only. The curb along the southwest corner of the intersection will also be revised to improve intersection alignment. This entails removal of the existing eastbound right-turn lane. No changes will be made to the southbound or northbound approaches. The following lane geometry is proposed:

- Southbound – one shared through/right-turn lane, one through lane, one left-turn lane
- Westbound – one right-turn lane, one through lane, one left-turn lane
- Northbound – one shared through/right-turn lane, one through lane, one left-turn lane
- Eastbound – one shared through/right-turn lane, one through lane, one left-turn lane

Tables 13–1 and 13–2 in Appendix K also show Near-Term and Long-Term intersection operations for Las Posas Road/Linda Vista Drive under the proposed conditions. As shown in Tables 13–1 and 13–2 of Appendix K, this intersection would continue to operate at acceptable LOS D or better under the proposed conditions including Project traffic.

The project would be required to provide adequate on-site circulation for passenger vehicles, heavy vehicles, bicyclists, and pedestrians. Internal circulation within the project site, as well as proposed off-site improvements is

shown in site plans subject to City review (see Figure 2-5, Conceptual Site Plan, in Chapter 2 of this EIR), and would be designed to comply with the following recommendations of the LTA, as required by conditions of approval:

- All access points shall provide adequate driveway sight distance.
- Any driveways located on La Mirada Drive or Linda Vista Drive should be located as far from Las Posas Road as practically allowable with other site constraints.
- The easterly driveway on Linda Vista Drive should be limited to right turns only given its proximity to Las Posas Road. The analysis presented in this report assumes that the easterly driveway on Linda Vista Drive is limited to right turns.
- The easterly driveway on La Mirada Drive may provide full access turning movements if queued vehicles at Las Posas Road do not interfere with access. Improvements are proposed in Section 13.4 of Appendix K to provide additional capacity and storage area to left turns from eastbound La Mirada Drive to Las Posas Road, thus minimizing queues and potential interference with any Project driveways.
- If appropriate, driveways to Las Posas Road should be limited to right turns only.
- Driveways to any street should be aligned with driveways located on the opposite side of the street to the extent practical considering site design to assist turning movements.

Project compliance with applicable plans is outlined below.

### **SANDAG's San Diego Forward: The 2021 Regional Plan**

The proposed project is consistent with SANDAG's San Diego Forward: The Regional Plan policies and strategies to manage congestion, as it would develop in an infill area in a manner that would reduce VMT (see below), and the project would incorporate safe access to/from the project site and surrounding roadways. The proposed project would also not preclude the development of any specific improvement projects identified in the Regional Plan to reduce regional congestion.

As described in Section 3.15.2, Regulatory Setting, there are no CMP-specific requirements associated with this project.

### **City of San Marcos Bikeway Master Plan**

Goals of the master plan are to improve bicycle facilities throughout the city for safer routes to school, connections to adjacent cities and incorporate an environmental inventory analysis. One of the goals of the master plan is to connect the City's trails to bicycle facilities to complete a safe and enjoyable trail and bikeway system. As outlined in Chapter 2 of this EIR, the proposed project would construct or preserve space for the portions of proposed bicycle facilities on Linda vista Drive from Pacific Street to Las Posas Road immediately adjacent to the project site. Implementation of the project would not conflict with the City's Bikeway Master Plan.

The project would implement the following active transportation improvements:

- Provide a 6-foot sidewalk and Class II buffered bike lane along the project's frontage on Pacific Street
- Provide a 12-foot urban trail (shared use path) along the project's frontage on Linda Vista Drive
- Provide a 12-foot urban trail (shared use path) along the project's frontage on La Mirada Drive



Additionally, as part of the project, additional pedestrian connectivity would be provided along three of the adjacent street frontages. Along South Pacific Street and Linda Vista Drive, adjacent to the project site, sidewalks would be added in the existing travel lane, in order to avoid biological impacts adjacent to the designated open space on site. Where development is proposed on site, an expanded trail would be provided. On La Mirada Drive, a complete urban trail system (shared use path) would be provided along the entire length of the road, along the project frontage. The proposed urban trail would be up to 12 feet wide (please refer to Figure 2-5).

### **City of San Marcos General Plan – Mobility Element**

As outlined in Section 3.10, Land Use and Planning, of this EIR, the project would be consistent with applicable goals of the City's General Plan Mobility Element. The proposed project would promote sustainability through locating residential uses on an underutilized infill site proximate to existing schools, markets, parks, transit, and shopping centers. VMT would be reduced by sustainably locating residential uses in this infill area. In addition, the project would be required to comply with Title 24 requirements and would include amenities such as electric vehicle charging stations, installation of electric or solar water heaters, implement a Transportation Demand Management plan, reduced landscaping water use, and plant trees. Additionally, the proposed project would be required to provide a proposed circulation plan outlining safe movement within the project site, including emergency access, subject to review by the City and the San Marcos Fire Department. The internal circulation network for the proposed project would not include any hazardous design features or incompatible uses. The proposed project would include circulation amenities and improvements such as an interconnected mobility system for bicycles, pedestrians, and vehicles in order to provide residents with safe movement within the project site; as well as secondary emergency access, connections to existing roadways within the vicinity of the project site, and access to regional arterial and highway networks and SPRINTER/Breeze transit services.

### **City of San Marcos Municipal Code**

The project would include a total of 927 parking spaces. Of the spaces, 234 would be designated for the proposed rowhomes, 254 spaces would be designated for the proposed villas, 359 spaces would be designated for the proposed apartments, and 80 spaces would be provided for the proposed affordable flats. Under existing conditions, on-street parking on adjacent streets is limited to Pacific Street and La Mirada Drive. On-street parking is prohibited on both sides of South Las Posas Road and along the project frontage on Linda Vista Drive.

For the affordable rental housing, which would be deed restricted for 55 years, the project meets the requirements of Section 65915, subdivisions (b) and (c). The applicant is therefore requesting the application of the parking ratios set forth in Section 65915(p)(1) be applied to the affordable rental project. Therefore, the project would comply with the required parking ratios for multifamily dwelling units and affordable housing projects, as shown in the parking summary calculations in Figure 2-5 and as outlined in Table 2-4 in Chapter 2 of this EIR.

The project would provide 4 more parking spaces than required. Of the 234 spaces provided for the rowhomes, 202 would be garage spaces and 32 would be uncovered. Of the 254 spaces provided for the villas, 216 would be garage spaces and 38 would be uncovered. Of the 359 apartment units, 172 would be garage spaces and 187 would be uncovered. The 80 parking spaces provided for the affordable flats would be uncovered. A minimum of 5% of parking spaces required would be equipped with EV charging stations or as otherwise required by CALGreen, whichever is more significant. Per the City's Municipal Code, residential projects that provide required uncovered parking shall assign parking spaces by dwelling unit. Spaces shall be clearly marked to denote assigned parking. For the convenience of tenants and guests, parking spaces shall be located as close as possible to the unit or

common facility it is intended to serve (City of San Marcos 2022). The project would comply with these requirements outlined in the City's Municipal Code.

For the reasons stated in the analysis above, impacts are determined to be less than significant.

***Threshold No. 2: Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?***

As discussed above, CEQA Guidelines Section 15064.3 replaces LOS with VMT as the appropriate metric to be used in assessing a project's transportation related impacts. Under CEQA Guidelines Section 15063.4(b)(1), VMT exceeding an applicable threshold of significance may indicate a significant impact, although, development projects within 0.5 miles of a major transit stop are presumed to cause a less than significant transportation impact. A "major transit stop" includes a site containing an existing rail or bus rapid transit station, or the intersection of two or more major bus routes based on frequency of service intervals (PRC Section 21064.3.).

NCTD provides public transportation within the City and the County of San Diego for Coaster rail service, SPRINTER light rail service, and Breeze bus service. SPRINTER service operates between Escondido and Oceanside, with connections to Interstate 5 and the Coaster rail service operating out of the City of Oceanside. The NCTD operates the Palomar College Station SPRINTER and Breeze transit station located approximately 0.6 miles from the proposed project's La Mirada Drive entrance. Therefore, the project site falls just outside the 0.5-mile threshold under CEQA Guidelines Section 15064.3 subdivision (b). However, it should be noted that two Breeze bus service stops along South Las Posas Road, including the Las Posas Road and Linda Vista Drive bus stop and the Las Posas Road and La Mirada Drive bus stop, are located along the project site's eastern border.

Because the project site is located just beyond 0.5 miles from a major transit stop, and in compliance with the City's, a quantitative VMT analysis has been prepared for the project (Appendix J).

**Vehicle Miles Traveled Analysis**

As described under Section 3.15.1, for new land use developments that do not meet any of the screening criteria, the VMT metrics and thresholds outlined in the City TIAG, are used to determine whether the proposed project would result in significant transportation related impacts. Since the project proposes residential land uses, based on the City TIAG, this EIR evaluates whether the project VMT per resident would exceed a significance threshold of 15% below the existing countywide average VMT per resident. Because the proposed project is estimated to generate ADT greater than 2,400 (a total of 2,694 ADT), the project's residential VMT per resident was estimated using the SANDAG regional travel demand model as recommended by the City's TIAG.

The requirement to prepare a detailed transportation VMT analysis applies to all land development projects except for those that meet at least one of the provided screening criteria outlined below. A project that meets at least one of the screening criteria listed below would be considered to have a less-than-significant impact due to the project or location characteristics.

1. Small Projects (less than 10 daily vehicle trips)
2. Affordable Housing (100% deed restricted)
3. Local Serving Retail and Public Facilities (50,000 square feet gross floor area or less)
4. Adjacency to High-Quality Transit
5. Map-Based Screening (projects located in VMT efficient areas; limited to projects generating fewer than 2,400 ADT)

Based on the project site location, land use characteristics, and trip generation of the project, none of the above listed screening criteria are applicable and therefore a detailed VMT analysis is required. Consistent with City guidelines, the SANDAG regional travel demand model was used to estimate the project’s VMT per resident. The SANDAG Series 13 Travel Demand Model (also known as ABM 1) is the latest model available from SANDAG that can be run with land use overrides, which is required by the City of San Marcos TIA Guidelines for projects generating greater than 2,400 ADT. SANDAG Series 14 (ABM 2) is the latest published and approved model for VMT data, however, the ABM 2 model cannot be run for development projects that require land use overrides to produce project VMT information because the necessary scripts/procedures were not developed. Another update to the regional model (ABM 2+) is currently in development that will be able to run land use overrides. This update was adopted in December 2021 but the capability of running land use overrides currently remains unavailable. Therefore, in this interim period, the ITE Transportation Capacity and Mobility Task Force recommends VMT modeling that requires land use overrides use the ABM 1 model due to ABM 2’s limitations. “[T]he use of ABM 1 for VMT analysis for those projects that require a model run and involve land use overrides ... provide[s] the best available data.”<sup>3</sup> VMT data should then only be compared with regional averages within the same model version.

Accordingly, the project’s transportation engineers (LLG) customized the SANDAG Series 13 model to reflect the proposed project land uses. Table 3.15-7 shows the results of the Project VMT analysis. Based on the model outputs, the SANDAG region’s average VMT per resident is 17.5, while the Project’s VMT per resident was calculated at 10.8 VMT per resident. Based on the City’s TIAG, the applicable threshold of significance is 15% below the region average of 17.5, or 14.9 VMT per resident. Because the proposed project VMT per Resident is 10.8, which is 38% below the regionwide average VMT per resident the proposed project VMT is below the significance threshold of 15% below the regionwide average or 14.9 VMT per Resident. Therefore, VMT impacts would be less than significant, and no mitigation is required.

**Table 3.15-7. Project VMT Findings**

| Metric           | Regionwide Average <sup>a</sup> | Significance Threshold (15% below Average) | Project VMT <sup>a</sup> | Project VMT Over Threshold | % of Project VMT Over Significance Threshold | Transportation Impact? (Over Threshold) |
|------------------|---------------------------------|--|--------------------------|----------------------------|--|---|
| VMT per Resident | 17.5                            | 14.9                                       | 10.8                     | —                          | —  | No                                      |

Source: Appendix J.

Notes: VMT = vehicle miles traveled.

<sup>a</sup> Regionwide Average and Project VMT per Resident from SANDAG Series 13 Base Year 2012 Travel Demand Model, customized to include proposed Project land uses.

The relatively low project VMT reflects, in part, the moderately high employment density in the vicinity attributable to the surrounding commercial and light industrial land uses and correspondingly, the proximity of multiple employment opportunities, which results in reduced VMT. In addition, the well-developed commercial area along South Las Posas Road immediately opposite the project site is within easy walking distance and would serve the shopping and dining demand of future residents, further contributing to a reduced VMT per resident. Moreover, as discussed in Section 3.15.1, the project site is adjacent to bus stops serving two separate routes with connections to SPRINTER service at Palomar College Station, further contributing to reduced VMT per resident. Bradley Park, a 24-acre park offering baseball diamonds, a soccer field, a playground, picnic areas is located across from the site’s southwestern corner, providing recreation within walking distance. It should also be noted that the project is

<sup>3</sup> Use of ABM 1 and ABM 2 for SB 743 Related VMT Analysis in the Interim Until ABM 2+ is Completed [White paper]. San Diego, CA: ITE Transportation Capacity and Mobility Task Force – SB 743 Modeling Subcommittee, 2020.

providing 68 affordable units, approximately 15% of the total units, which typically generate lower VMT than market rate housing; the analysis assumed all of the housing units would be market rate housing and did not take any reductions for the affordable housing units (Appendix J).

In summary, the proposed project would promote sustainability through locating residential uses on an underutilized infill site proximate to existing employment, entertainment, schools, markets, parks, transit, and shopping centers. As a result, VMT would be reduced by sustainably locating residential uses in this infill area. In addition, the project would be required to comply with Title 24 requirements and would be required to implement a Transportation Demand Management Plan, further reducing VMT. Furthermore, the project site is located adjacent to transit service with stops located near both the north and south ends of the project site along South Las Posas Road. The proposed project would upgrade the existing stop along its frontage with enhanced amenities (minimum of bench, shelter, and trash can) and include clear and direct access to bus stops in the site design. As the results of the project VMT comparison indicate that the project VMT per resident is below the significance threshold, impacts are determined to be less than significant.

***Threshold No. 3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

The project site is located in an infill area bounded by Las Posas Road, Pacific Street, La Mirada Drive, and Linda Vista Drive. Under existing conditions, on-street parking on adjacent streets is limited to Pacific Street and La Mirada Drive. On-street parking is prohibited on Las Posas Road and Linda Vista Drive. The project will be served by three driveways located on La Mirada Drive and one driveway on Linda Vista Drive.

All proposed circulation improvements would be designed in accordance with the City's roadway design standards to ensure proper safety requirements are met. The internal circulation network for the project would not include any hazardous design features or incompatible uses. All driveways would provide for full turning movements. An emergency-only access is proposed on Las Posas Road, and no day-to-day project traffic would be allowed through this driveway. The project would include circulation amenities such as an interconnected mobility system for bicycles, pedestrians, and vehicles in order to provide residents with safe movement within the project site; as well as secondary emergency access, connections to existing roadways within the vicinity of the project site, and access to regional arterial and highway networks and SPINTER/Breeze transit services. All final project plans are subject to review and approval by the City and the San Marcos Fire Department, and all roadway improvements implemented as part of the project would be designed consistent with City policy and guidelines, as discussed above under Threshold No. 1.

Additionally, the project proposes to upgrade the existing bus stop along its frontage with enhanced amenities and include clear and direct access to the adjacent bus stops located near both the north and south ends of the site along Las Posas Road. Furthermore, considering the proposed residential uses for the project site, no incompatible uses, such as farm equipment or motorsport vehicles, would be operated on site during project construction or operation. As such, impacts related to design features and incompatible uses would be less than significant.

***Threshold No. 4: Would the project result in inadequate emergency access?***

As described in response to Threshold No. 3, the project would be served by three driveways located on La Mirada Drive, and one driveway on Linda Vista Drive. All driveways would provide for full turning movements. An emergency-only access is proposed on Las Posas Road, and no day-to-day project traffic would be allowed through this driveway. Thus, the proposed project would provide four points of entry, as well as one emergency only access way, and each would be designed to meet the design requirements codified in the California Fire Code.

According to the General Plan Safety Element, the San Marcos Emergency Operations Plan governs the operations of the City during a disaster. This plan addresses response to moderate evacuation scenarios, including the identification of evacuation points and general routes (City of San Marcos 2012). The project would be required to abide by standards as set forth in the San Marcos Emergency Operations Plan. Implementation of the project would not impact any roadway or staging areas that are identified in any emergency planning documents and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Additionally, as described in Section 3.13, Public Services, of this EIR, the FPP prepared for the project (Appendix N to this EIR) determined that San Marcos Fire Department could provide emergency response to the project site within its internal 7-minute response time from SMFD Stations 1 and 2, and Vista Fire Department Station 4 could provide an approximate 7-minute response to the project site and would respond per mutual aid agreements, if needed.

Furthermore, the California Fire Code, along with the San Marcos Fire Department, administers the rules and regulations on fire access design. Final site plans will be required to show fire and emergency responders suitable fire access roads dimensions and surfaces (Chapter 5, Section 503.1 through 503.4 of the California Fire Code), an adequate number of emergency rated entrances to the community (Appendix D, Section D106 of the California Fire Code), and entryway gate access for first responders (Chapter 5 of the California Fire Code, Section 503.6). All final project plans and the VMT Analysis prepared for the proposed project (included as Appendix J to this EIR) are subject to review and approval by the City and the San Marcos Fire Department. Proposed circulation improvements would be designed in accordance with the City's roadway design standards to ensure proper safety requirements are met. Therefore, it impacts related to emergency access would be less than significant.

#### 3.15.5 Mitigation Measures

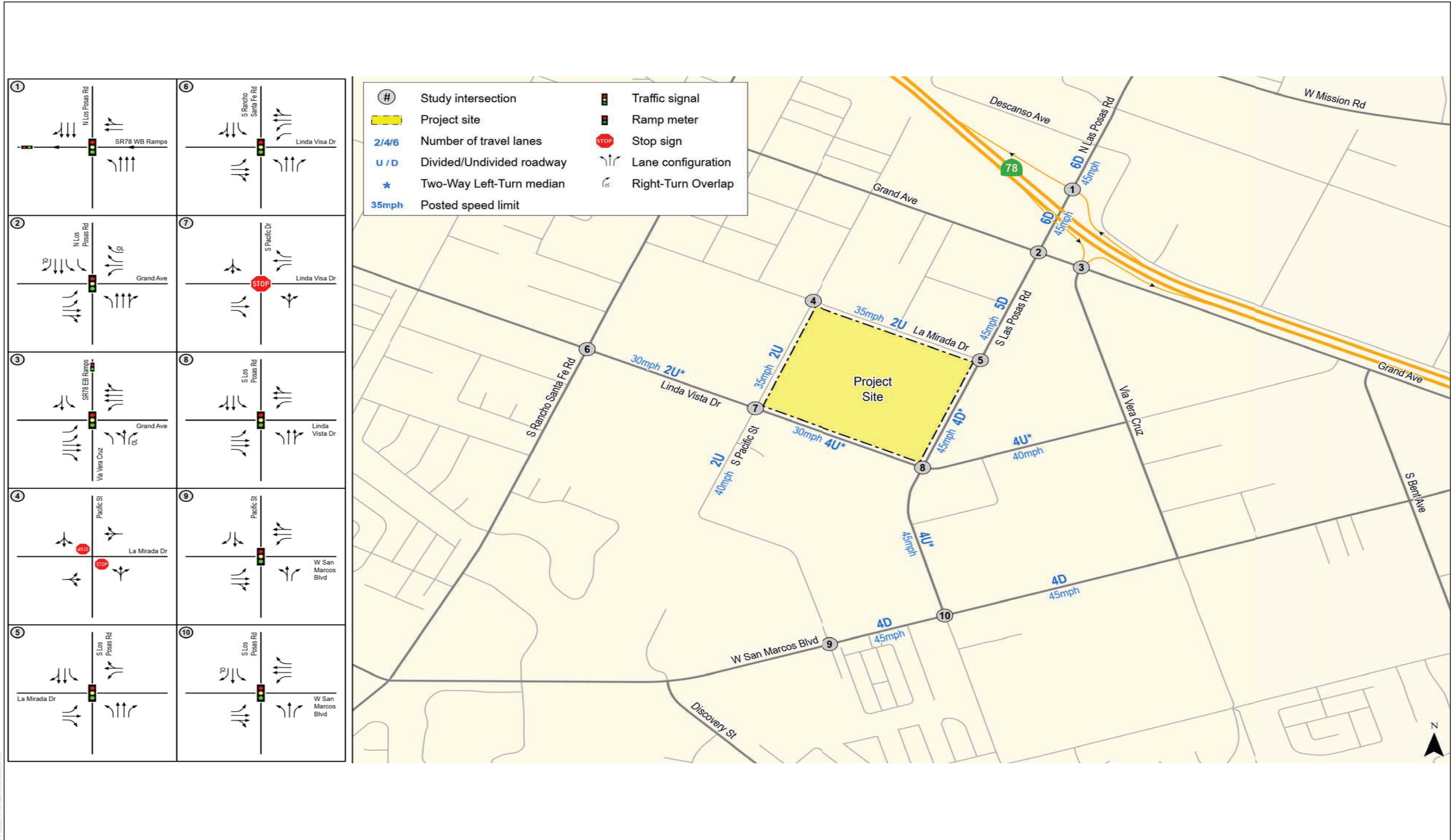
As analyzed in Section 3.15.4, implementation of the proposed project would result in less than significant impacts relative to transportation and, therefore, no mitigation is required under CEQA.

#### 3.15.6 Conclusion

The proposed project would provide for residential land uses in an infill area, taking advantage of the site's location near transit, retail, employment, schools, parks, and other uses. The proposed project would be consistent with programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and, therefore, related impacts would be less than significant.

As described under Section 3.15.1, under CEQA, LOS or other measures of vehicle capacity or traffic congestion (i.e., traffic delay) are no longer considered in evaluating whether a significant impact on the environment would occur; and therefore, the LOS analysis referred to in this section and outlined in Appendix K to this EIR, is for informational purposes only. Similarly, trip generation rates and distribution information related to the LOS analysis also is presented for information purposes only. Section 13.0 of the LTA (Appendix K) explains that Intersection #3 (Via Vera Cruz/Grand Avenue/SR-78 EB Ramps [*Near-Term and Long Term*]), Intersection #7 (Pacific Street/Linda Vista Drive [*Near-Term and Long Term*]), and Street Segment #6 (Pacific Street: La Mirada Drive to Linda Vista Drive [*Long-Term*]) are calculated to operate at unacceptable LOS with a substantial effect due to traffic generated from the project. However, implementation of intersection and roadway improvements outlined in the LTA (Appendix K), and compliance with applicable regulations related to transportation and circulation, would ensure potential impacts related to road hazards and emergency access would be less than significant.

As outlined in the VMT analysis prepared for the project (Appendix J to this EIR), based on the model output of the SANDAG regional travel demand model run customized with the project land uses, the project's VMT per resident is less than 15% below the regionwide average. The project therefore results in less than significant impacts related to traffic and transportation, and no mitigation is required.

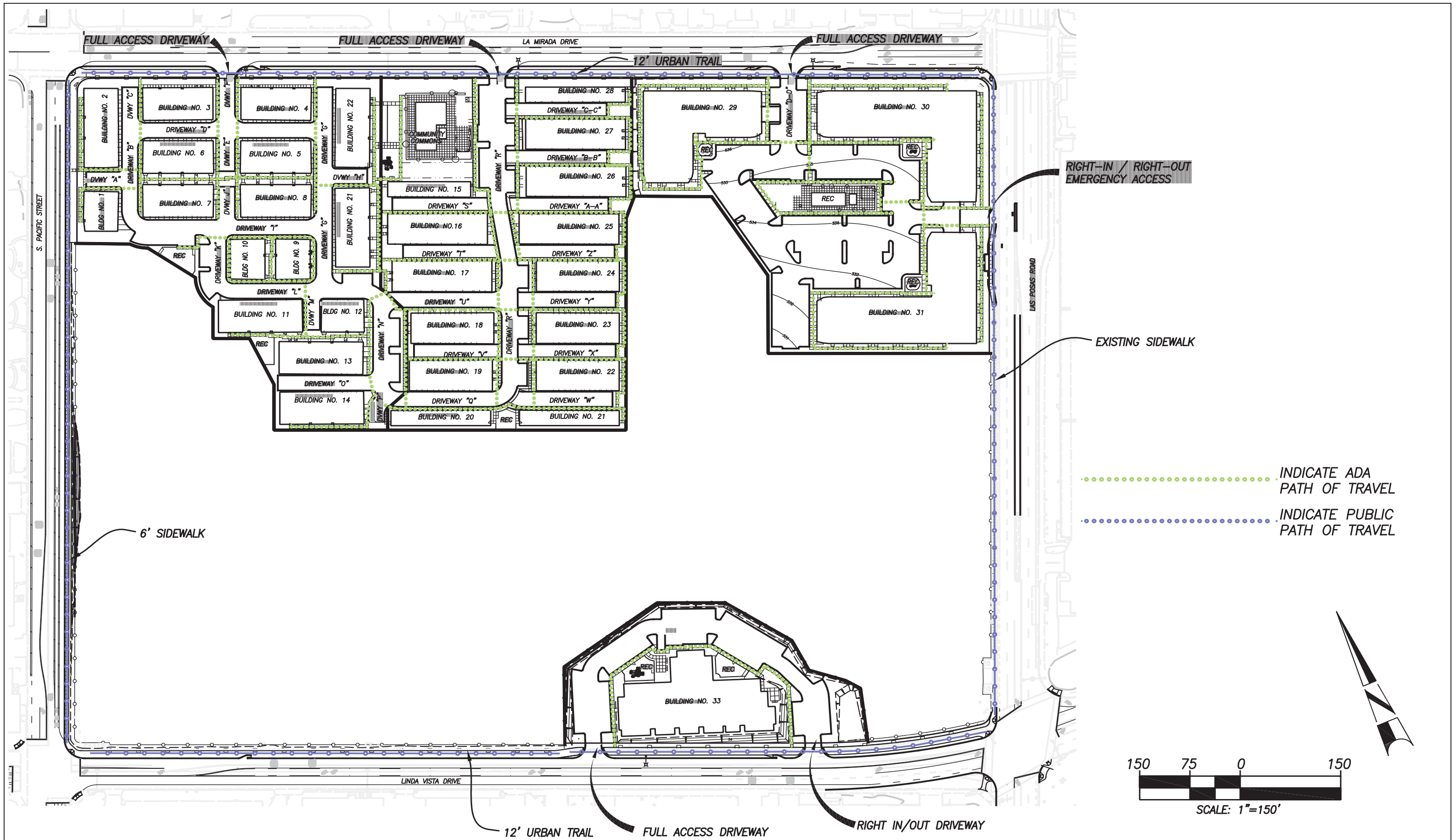


SOURCE: Linscott Law & Greenspan, 2022

**FIGURE 3.15-1**  
Existing Traffic Conditions  
Pacific Project EIR

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SOURCE Lundstrom Engineering and Surveying, Inc., 2023

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## 3.16 Tribal Cultural Resources

This section describes the existing tribal cultural resources of the proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. As defined by California Public Resources Code (PRC), Section 21074, a tribal cultural resource is a site, feature, place, or 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 1) either on or eligible for the California Register of Historic Resources (CRHR) or a local historic register, or 2) determined by the City, at its discretion to treat the resources as a tribal cultural resource (PRC Section 5024.1). Cultural resources are further analyzed in Section 3.4, Cultural Resources, of this environmental impact report (EIR).

The analysis in this section relies, in part, on the Cultural Resource Inventory Report for the Pacific Project, City of San Marcos, California, (Cultural Resources Report) prepared by Dudek in December 2022. The analysis also considers the California Environmental Quality Act (CEQA) Guidelines Appendix G and applicable state and local regulations, including the City of San Marcos General Plan. The Cultural Resources Study is included as Appendix D to the EIR.

Table 3.16-1 summarizes the tribal cultural resources project- and cumulative-level impacts, by threshold.

**Table 3.16-1. Tribal Cultural Resources Summary of Impacts**

| Threshold of Significance  | Project-Level Impact    | Cumulative-Level Impact | Significance Determination                      |
|--|-------------------------|-------------------------|---|
| <p>No. 1 – Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> <li>a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</li> <li>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</li> </ul> | Potentially Significant | Less than Significant   | Less than Significant with MM-TCR-1 to MM-TCR-4 |

### 3.16.1 Existing Conditions

The undeveloped project site is relatively flat and dominated by invasive shrubs and grass. Although undeveloped, the project site reflects a history of disturbance. Vegetation is disturbed by an abundance of invasive and weedy plant species, and unpaved roads crossing the project site are visible on historic aerials since 1980 (Appendix C).

The project area of potential effect (APE), as analyzed in the Cultural Resources Report, includes the entire 33.2-acre project site. The project APE is located at the northwest corner of Las Posas Road and Linda Vista Drive and is surrounded primarily by industrial and commercial uses.

The information herein describes the existing archeological context of the project site. It also provides information on the outreach and consultation efforts with local Tribes, as required by existing regulations.

#### Methodology

##### South Coastal Information Center Records Search

Dudek requested a records search from the South Coastal Information Center (SCIC) for the project APE and a 1-mile buffer on March 13, 2021. SCIC responded with the results of the records search on March 16, 2021. The records search revealed that 69 previous cultural resources studies have been completed within 1 mile of the project APE (Appendix D). Seven of these previous studies intersect the current project APE. One of the previous studies completed consisted of a records search, archival review, and a pedestrian survey of the entire current project APE. This study identified no cultural resources within the project APE.

The SCIC records search also revealed that no cultural resources have been recorded within the project APE. The records search did identify 19 cultural resources and two historic addresses within 1 mile of the project APE (see Table 2, Resources within 1 Mile of Project APE, in Appendix D). The closest resources to the project APE are P-33-011663 and P-33-012735, both consisting of highly disturbed prehistoric artifact scatters located 0.4 miles from the project APE.

##### Native American Heritage Council and Native American Outreach Letters

Dudek requested a Native American Heritage Council (NAHC) search of the Sacred Lands File on March 12, 2021, for the project APE and a 1-mile buffer. The Sacred Lands File consists of a database of known Native American resources. These resources may not be included in SCIC database. The NAHC replied on March 24, 2021, and reported that the Sacred Lands File did not identify any known Native American cultural resources within the project APE or the surrounding 1-mile buffer (Appendix D). The NAHC additionally provided a list of Native American tribes and individuals/organizations with traditional geographic associations that might have knowledge of cultural resources in this area.

Outreach letters were mailed on March 30, 2021, to all Native American group representatives included on the NAHC contact list (Appendix D). These letters attempted to solicit additional information relating to Native American resources that may be impacted by the project. Native American representatives were requested to define a general area where known resources intersect the project APE. To date, two responses have been received. The first response is from the Rincon Band of Luiseño Indians stating the project site is located within the Band's specific Area of Historic Interest, and requests a survey of the property, a professional tribal monitor during the survey, a copy of the final study for review and comment, and request for further consultation with the City. The second

response is from the Viejas Band of Kumeyaay Indians, stating the project site has cultural significance or ties to the Kumeyaay Nation and recommends notifying the San Pasqual Band of Mission Indians, requests all National Environmental Policy Act/CEQA/Native American Graves Protection and Repatriation Act laws be followed, and requests immediate contact of San Pasqual Band of Mission Indians on any changes or inadvertent discoveries. No other communications between Dudek and the tribes has occurred since then.

In compliance with Assembly Bill 52 and Senate Bill 18, the City, as lead agency, is responsible for conducting government to government consultation with pertinent tribal entities. This EIR will be revised to include information obtained through consultation, as it becomes available.

## 3.16.2 Regulatory Setting

### State

#### California Register of Historical Resources and the California Environmental Quality Act

CEQA requires that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. The act defines historical resources as “any object, building, structure, site, area, or place that is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (PRC Section 5020.1[jj]).

Lead agencies have a responsibility to evaluate historical resources against the CRHR criteria prior to making a finding as to a proposed project’s impacts to historical resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of a historical resource that convey its historical significance (i.e., its character-defining features) is considered to materially impair the resource’s significance. The CRHR is used in the consideration of historical resources relative to significance for purposes of CEQA. The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places and some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (PRC Section 5024.1; 14 CCR 4852), which include the following:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States
- It is associated with the lives of persons important to local, California, or national history
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation

### Senate Bill 18

The Traditional Tribal Cultural Places Bill of 2004 (Senate Bill 18) requires local governments to consult with Native American tribes during the project planning process. The intent of this legislation is to encourage consultation and assist in the preservation of “Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance”. The purpose of this consultation is to protect the identity of the cultural place and to develop appropriate and dignified treatment of the cultural resource. The consultation is required whenever a General Plan, General Plan Amendment, Specific Plan, Specific Plan Amendment, or Open Space Element is proposed for adoption. As part of the planning process, California Native American tribes must be given the opportunity to consult with the lead agency for the purpose of preserving, mitigating impacts to, and identifying cultural places.

### Assembly Bill 52

Assembly Bill 52, which took effect July 1, 2015, establishes a consultation process between California Native American tribes and lead agencies in order to address tribal concerns regarding project impacts and mitigation to tribal cultural resources (TCRs). PRC Section 21074(a) defines TCRs and states that a project that has the potential to cause a substantial adverse change to a TCR is a project that may have an adverse effect on the environment. A TCR is defined as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either (1) listed or eligible for listing in the CRHR or a local register of historical resources, or (2) determined by a lead agency to be a TCR.

### Native American Historic Resource Protection Act

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act (PRC Section 5097 et seq.) makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

### California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act) (25 USC Chapter 32), enacted in 2001, requires all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

### California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code, Section 7050.5, requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Section 7050.5b). If the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the NAHC within 24

hours (Section 7050.5c). The NAHC will notify the most likely descendant, and with the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

## Local

### City of San Marcos General Plan

#### Conservation and Open Space Element

The Conservation and Open Space Element of the City's General Plan contains several policies pertaining to the protection of archaeological and historic resources. The following goals and policies apply to the project (City of San Marcos 2012):

Policy COS-2.5: Continue to review future development proposals to ensure that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements.

Goal COS-11: Continue to identify and evaluate cultural, historic, archaeological, paleontological, and architectural resources for protection from demolition and inappropriate actions.

Policy COS-11.1: Identify and protect historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA.

Policy COS-11.2: Prohibit the demolition or removal of a historic structure without evaluation of the condition of the structure, the cost of rehabilitation, and the feasibility of alternatives to preservation in place including but not limited to relocation, or reconstruction off site, and/or photo-preservation.

The project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning, of this EIR. As detailed in Section 3.10.4, Project Impact Analysis, the project is consistent with the applicable General Plan goals and policies pertaining to tribal cultural resources.

### 3.16.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to tribal cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to tribal cultural resources would occur if the project would:

Threshold No. 1: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources

Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

### 3.16.4 Project Impact Analysis

Impacts to tribal cultural resources that may result from ground disturbing activities associated with the proposed project are analyzed below.

***Threshold No. 1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***

- a) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or***
- b) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Under California's Assembly Bill 52, TCRs are defined as archaeological resources that are eligible for or listed in the CRHR, or resources that the lead agency determines to be a TCR with a substantial burden of evidence. To date, no TCRs have been identified that would be impacted by project implementation. However, tribal consultation with the City is ongoing, and this EIR will be updated upon conclusion of tribal consultation.

As described above, outreach letters were mailed on March 30, 2021, to all Native American group representatives included on the NAHC contact list (Appendix D). These letters attempted to solicit additional information relating to Native American resources that may be impacted by the project. Native American representatives were requested to define a general area where known resources intersect the project APE. To date, two responses have been received. The first response is from the Rincon Band of Luiseño Indians stating the project site is located within the Band's specific Area of Historic Interest, and requests a survey of the property, a professional tribal monitor during the survey, a copy of the final study for review and comment, and request for further consultation with the City. The second response is from the Viejas Band of Kumeyaay Indians, stating the project site has cultural significance or ties to the Kumeyaay Nation and recommends notifying the San Pasqual Band of Mission Indians, requests all National Environmental Policy Act/CEQA/Native American Graves Protection and Repatriation Act laws be followed, and requests immediate contact of San Pasqual Band of Mission Indians on any changes or inadvertent discoveries. City Assembly Bill 52 and Senate Bill 18 consultation is carried out by the City as the lead agency and is currently ongoing. While considered unlikely based on the SCIC record's search, current disturbed state of the project site, and other information received by the City to date, there remains the potential for the project to encounter previously unknown and unanticipated TCRs during construction of the proposed project (**Impact TCR-1**).



Implementation of previously identified mitigation in Section 3.4 of this EIR (MM-TCR-1 through MM-TCR-4) would ensure potential impacts to tribal cultural resources as a result of ground-disturbing activities on the project site would remain less than significant.

### 3.16.5 Mitigation Measures

Implementation of mitigation measures MM-TCR-1 through MM-TCR-4 outlined in Section 3.4 of this EIR would be required to ensure any potential impacts to unknown and unanticipated TCRs would remain less than significant.

### 3.16.6 Conclusion

For reasons described in Section 3.16.4, Project Impact Analysis, implementation of mitigation measures MM-TCR-1 through MM-TCR-4 outlined in Section 3.4 of this EIR would ensure any potentially significant impacts to TCRs (Impact TCR-1) remain less than significant.

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## 3.17 Utilities and Service Systems

This section describes the existing utilities setting of proposed Pacific Specific Plan Project (proposed project), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to water supply, water infrastructure, wastewater treatment capacity, wastewater infrastructure, and solid waste. Stormwater drainage and facilities are also analyzed in Section 3.9, Hydrology and Water Quality, of this environmental impact report (EIR). Energy consumption and conservation are addressed in Section 3.5, Energy, of this EIR.

The analysis herein relies on the following technical studies and supporting documentation:

- Pacific Multi-Family Water and Sewer Study by Vallecitos Water District, November 17, 2022 (Appendix L)
- Preliminary Drainage Study, prepared by Lundstrom Engineering and Surveying, Inc., February 24, 2023 (included as Appendix E to this EIR).
- Storm Water Quality Management Plan, prepared by Lundstrom Engineering and Surveying, Inc., August 15, 2022 (revised February 16, 2023) (included as Appendix G to this EIR)

Table 3.17-1 summarizes the utilities and service system analysis, by threshold.

**Table 3.17-1. Utilities and Service Systems Summary of Impacts**

| Threshold of Significance  | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|--|-----------------------|-------------------------|----------------------------|
| No. 1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 5. Comply with federal, state, or local management and reduction statutes and regulations related to solid waste.  | Less than Significant | Less than Significant   | Less than Significant      |

### 3.17.1 Existing Conditions

This section provides background information about the water, wastewater and solid waste service providers that currently serve the project area and that would serve the proposed project.

#### Water

The project site is located within the Vallecitos Water District (VWD) for water services (Appendix L). According to the City of San Marcos (City) General Plan, the VWD receives its water from the Metropolitan Water District of Southern California (MWD), which imports water from the Colorado River and Northern California (City of San Marcos 2012a).

MWD was formed in 1928 to develop, store, and distribute supplemental water to southern California for domestic and municipal purposes. MWD consists of 26 member agencies and has a service area covering six counties, 5,200 square miles, and approximately 19 million people. MWD obtains water from local sources as well as the Colorado River, via the Colorado River Aqueduct, and the Sacramento-San Joaquin Delta, via the State Water Project. MWD's Urban Water Management Plan (UWMP) documents the availability of these supplies to meet future demands. With a projected annual water demand of 5,234,000 acre-feet/year for 2020, the MWD UWMP concludes that, with implementation of required conservation measures, MWD has supply capabilities sufficient to meet expected demands through 2040 under normal, single dry, and multiple dry water years (MWD 2016).

The MWD water demands through normal, single dry year, and multiple dry years are shown in Table 3.17-2.

**Table 3.17-2. MWD Water Demands**

| Average Year        |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| Dates               | 2020      | 2025      | 2030      | 2035      | 2040      |
| Total Demands (AFY) | 5,219,000 | 5,393,000 | 5,533,000 | 5,663,000 | 5,793,000 |
| Single Dry-Year     |           |           |           |           |           |
| Dates               | 2020      | 2025      | 2030      | 2035      | 2040      |
| Total Demands (AFY) | 5,234,000 | 5,409,000 | 5,549,000 | 5,679,000 | 5,808,000 |
| Multiple Dry-Years  |           |           |           |           |           |
| Dates               | 2020      | 2025      | 2030      | 2035      | 2040      |
| Total Demands (AFY) | 5,199,000 | 5,450,000 | 5,601,000 | 5,732,000 | 5,865,000 |

Source: MWD 2016.

Notes: AFY = acre-feet/year.

San Diego County Water Authority (SDCWA or Water Authority) is the largest member agency of MWD. SDCWA's 2020 UWMP was approved on May 27, 2021. SDCWA's mission is to provide a safe and reliable supply of water to its 24 member agencies serving the San Diego region, which includes VWD. SDCWA is San Diego County's predominant source of water, supplying from 75% to 95% of the region's water needs (SDCWA 2021). The population within the Water Authority's service area was approximately 3.3 million people in 2020 and is projected to increase to roughly 3.8 million people by 2045. The County of San Diego is expected to develop an additional 130,000 acres between 2020 and 2050, with the majority (125,000 acres) of development dedicated to residential land uses. These regional growth projections are based on the San Diego Association of Governments (SANDAG)

Series 14 Regional Growth Forecast, developed for its 2019 Federal Regional Transportation Plan adopted by SANDAG's Board of Directors on October 25, 2019. In fiscal year 2020, total water demand in the Water Authority's service area was 463,128 acre-feet, of which 92% was for municipal and industrial use and 8% was for agricultural water use. By 2045, the Water Authority's total water demands are projected to reach 630,771 acre-feet. This projection accounts for planned future water conservation savings (SDCWA 2021).

There are existing 855 Zone and 920 Zone water facilities in the vicinity of the project site. The 920 Zone facilities consist of 24-inch and 30-inch transmission lines that do not provide direct service to properties in the area. Water service to existing development in the area is from connections to the 855 Zone, which includes 12-inch lines in Linda Vista Drive and Pacific Street, and 8-inch lines in La Mirada Drive and South Las Posas Road.

## Wastewater

The project site is located within the VWD for sewer services (Appendix L). The VWD currently has a wastewater system that has a total liquids treatment capacity of 12.45 million gallons per day (MGD) and has an estimated maximum daily flow of approximately 9.54 MGD (City of San Marcos 2012a). VWD's award-winning Meadowlark Water Reclamation Facility (MRF) is capable of recycling up to 74% of the wastewater generated in VWD's service area. Built in 1961, MRF is located within the southwestern portion of VWD's service area in Carlsbad. The MRF treats wastewater to meet the stringent standards of California Title 22 and Waste Discharge Permit R9-2007-0018 issued by the Regional Water Quality Control Board Region 9. The MRF has a capacity of 5 MGD, with a wet weather treatment capacity of 8 MGD. Recycled water from MRF travels through a 24-inch pipeline and is sold to the Carlsbad Municipal Water District and Olivenhain Municipal Water District. The Carlsbad Municipal Water District is contracted to annually purchase 3 MGD, while Olivenhain Municipal Water District is contracted to annually purchase up to 1.5 MGD (VWD 2018).

Surplus water from the MRF is stored in the 54-MG Mahr Reservoir. Of the total 54 MG within the reservoir, 32 MG is allocated to Carlsbad Municipal Water District, and 16 MG is allocated to Olivenhain Municipal Water District, leaving 6 MGD for VWD to use in wastewater flow management. From here, water can be transported to the Encina Water Pollution Control Facility for disposal via a 3 MGD capacity failsafe pipeline. Under dry weather conditions, up to one MGD is conveyed for disposal. Under wet weather conditions, VWD would manage flow via the Mahr Reservoir to ensure flows to Encina Water Pollution Control Facility would not exceed 2.5 MGD.<sup>1</sup> According to VWD's Master Plan, when the pipeline is at capacity, Carlsbad Municipal Water District has agreed to permit VWD to dispose of additional flow into their recycled water distribution system, subject to availability. In January 2010 through June 2014, VWD conveyed approximately 3.65 MGD of wastewater flow to the MRF for treatment and disposal (VWD 2018).

There are existing gravity sewer lines on all sides of the project site. There are 8-inch gravity sewer lines in Pacific Street and La Mirada Drive, a 15-inch sewer line in Linda Vista Drive, and parallel 10-inch and 18-inch sewer lines in South Las Posas Road. These gravity sewers all convey flow to South Las Posas Road where they are conveyed south to San Marcos Boulevard and eventually to District Lift Station No. 1.

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<sup>1</sup> Despite a total capacity of 3 MGD in the failsafe pipeline, permitted wastewater flows are determined by acceptable depth to-diameter ratios to ensure infrastructure longevity and functioning systems. This means that maximum flows to Encina Water Pollution Control Facility will be less than 3 MGD.

## Stormwater Drainage

Storm water arrives on site via natural rainfall only. Rainfall runoff from the site typically only occurs during a significant storm event. Water that does accumulate on site generally drains in a south-easterly direction toward the northwest corner of Linda Vista Drive and South Las Posas Road. This drainage is collected in a corrugated metal pipe riser that drains to an 11-foot by 7-foot reinforced concrete box in South Las Posas Road, and eventually flows downstream and discharges to San Marcos Creek. The remainder of the site surface drains to the surrounding streets. All surrounding streets drain via gutter flow to the same corner (South Las Posas Road and Linda Vista Drive) where runoff is collected by a pair of curb inlets that drain into the same 11-foot by 7-foot reinforced concrete box in South Las Posas Road. There is no off-site run-on to the project site.

## Solid Waste

Solid waste disposal in the City is provided by a private franchise hauler, EDCO Waste and Recycling (EDCO), a private waste collection and recycling company that handles all residential, commercial, and industrial collections within the City (City of San Marcos 2012a). Waste collected by EDCO is hauled to the Escondido Resource Recovery Transfer Station. Waste is then transported to the Sycamore Sanitary Landfill in Santee, while recyclable materials are processed at the Escondido Resource Recovery Transfer Station (City of San Marcos 2012a). The project site would be serviced by EDCO.

The Escondido Resource Recovery Transfer Station has a permitted daily maximum capacity of 2,500 tons. Solid waste is consolidated here and trucked to a landfill for disposal. The transfer station is permitted to operate 7 days per week, 24 hours per day (County of San Diego 2008). The Sycamore Sanitary Landfill has a daily permitted throughput of 5,000 tons/day of solid waste, a remaining capacity of approximately 113,972,637 cubic yards, and an anticipated closure date of 2042 (CalRecycle 2019a).

## Electrical and Natural Gas

Electricity and natural gas would be provided by San Diego Gas & Electric (SDG&E) (City of San Marcos 2012a). SDG&E provides energy service to an estimated 3.3 million consumers through 1.3 million electric meters and approximately 800,000 natural gas meters in San Diego County and southern Orange County (City of San Marcos 2012a). Electrical facilities throughout the City include a combination of aboveground and underground electrical distribution lines and utilities structures. Electricity to the project site would be provided by electrical distribution lines traversing seven SDG&E overhead utility poles located on La Mirada Drive between South Pacific Street and South Las Posas Road and underground electricity distribution lines that currently service to numerous properties on the north side of La Mirada Drive. SDG&E maintains a natural gas distribution system within La Mirada Drive, South Las Posas Road, Linda Vista Drive, and Pacific Street, which the project would connect to.

## Telecommunications

Telecommunications services to the project site may be provided by various distributors. The City's fiber-optic network is facilitated by a 72-strand fiber-optic line that runs on various streets throughout the City. All major arterials in the City have implemented fiber optics. Existing AT&T and Cox telecommunication lines surrounding the project site. Existing overhead pole line on La Mirada Drive between South Pacific Street and South Las Posas Road includes four AT&T poles. Cox Communications cables are attached to five of the SDG&E poles on La Mirada Drive between South Pacific Street and South Las Posas Road.

## 3.17.2 Regulatory Setting

Existing federal, state, and local regulations related to water supply, wastewater, and solid waste that are applicable to the proposed project are summarized below.

### Federal

#### Clean Water Act

The federal Clean Water Act establishes regulatory requirements for potable water supplies including raw and treated water quality criteria. The City of San Marcos is required to monitor water quality and conform to regulatory requirements of the Clean Water Act.

#### Resource Recovery and Conservation Act

The Resource Recovery and Conservation Act Subtitle D focuses on state and local governments as the primary planning, regulating, and implementing entities for the management of non-hazardous solid waste, such as household solid waste and nonhazardous industrial solid waste. Subtitle D provides regulations for the generation, transportation, and treatment, storage, or disposal of hazardous wastes.

### State

#### Urban Water Management Plans

Urban water purveyors are required to prepare and update a UWMP every 5 years. The UWMPs address water supply, treatment, reclamation, and water conservation, and contain a water shortage contingency plan. Local UWMPs are supplemental to the regional plans prepared by MWD. The Water Conservation Bill of 2009 (SBX7-7) requires each urban retail water supplier to develop an urban water use target and an interim urban water use target. Notably, SBX7-7 authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual agency basis or pursuant to a regional alliance as provided in California Water Code Section 10608.28(a). As described above, water service to the site is provided by MWD. In accordance with this regulation, MWD prepared its 2015 USMP, and their Board of Directors adopted it in 2016. MWD's UWMP includes estimated future water demands until 2040, using updated population projections and a conservative assumption that, in the absence of mandatory water conservation measures, per-capita consumption could rebound to its 2020 target value. Demands provided in MWD's UWMP have been coordinated with SDWCA, MWD's wholesale supplier.

#### California Green Building Standards Code (CCR, Title 24, Part 11 – CALGreen)

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2022 building standards code

became effective on January 1, 2023. The mandatory standards require the following measures that relate to utilities and service systems (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance
- 65% of construction and demolition waste must be diverted from landfills
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements, stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

#### Assembly Bills 939 and 341

In 1989, Assembly Bill (AB) 939, known as the Integrated Waste Management Act (PRC Section 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

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 not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020.

#### Local

##### San Diego County Integrated Waste Management Plan

Pursuant to the Integrated Waste Management Act, the Countywide Integrated Waste Management Plan for San Diego County describes the goals, policies, and objectives of the county for coordinating efforts to divert, market, and dispose of solid waste during the planning period through the year 2017. Countywide policies for reducing waste and implementing the programs are identified in the individual jurisdiction Source Reduction and Recycling Element and Household Hazardous Waste Element and are intended to reduce costs, streamline administration of programs, and encourage a coordinated and planned approach to integrated waste management.



To avoid duplication of effort, all of the jurisdictions in the county participate in the San Diego County Integrated Waste Management Local Task Force. The Local Task Force coordinates mandated planning, oversees implementation of new or countywide integrated waste management programs, and carries out an active legislative program. Regulatory reform, changes to state diversion requirements, and reduction of the costs of compliance are considered by the Local Task Force, as well as other solid waste issues of regional or countywide concerns.

### City of San Marcos Municipal Code

#### Title 8, Health and Sanitation

San Marcos Municipal Code (SMMC) Title 8 contains regulations and provisions on sewers and sewage disposal plants, sewer connections, septic tanks, waste matter, garbage and refuse collection, and other matters concerning sanitation.

#### Title 14, Streets, Sidewalks, and Underground Utility Facilities

SMMC Title 14, Chapter 14.15, contains regulations concerning storm water management and discharge control. Chapter 14.24 contains regulations concerning underground utility facilities.

#### Title 19, Subdivisions

SMMC Title 19 regulates subdivision requirements, including the installation of utility facilities and connections and payment or fees for such installations.

#### Title 20, Chapter 20.330, Water Efficient Landscaping Ordinance

The provisions of Title 20 of the SMMC are referred to as the Zoning Ordinance. SMMC Title 20, Section 20.330, details the City's Water Efficient Landscape. In accordance with State law, SMMC Chapter 20.330 establishes specific standards for landscape and irrigation design and installation to ensure beneficial, efficient, and responsible use of water resources within the City.

### City of San Marcos General Plan

The General Plan Conservation and Open Space Element includes one goal regarding water supply that is applicable to the proposed project (City of San Marcos 2012b):

Goal COS-5: Reduce water consumption and ensure reliable water supply through water efficiency, conservation, capture, and reuse.

The General Plan Conservation and Open Space Element also includes one goal and associated policy regarding solid waste that is applicable to the proposed project (City of San Marcos 2012b):

Goal COS-10: Establish and maintain an innovative, sustainable solid waste collection, recycling, and disposal delivery system for present and future generations.

Policy COS-10.1: Promote the curbside recycling program to divert residential refuse from the landfills.

The General Plan Land Use and Community Design Element identifies the following goals and policies regarding utilities and services systems that are applicable to the proposed project (City of San Marcos 2012a):

Goal LU-8: Ensure that existing and future development is adequately serviced by infrastructure and public services.

Policy LU-8.1: New development shall pay its fair share of required improvements to public facilities and services.

Policy LU-8.2: Promote development timing that is guided by the adequacy of existing and/or expandable infrastructure, services, and facilities.

Goal LU-13: Water Service and Supply: Manage and conserve domestic water resources by reducing water usage and waste on a per capita basis, to ensure an adequate water supply for existing and future residents.

Policy LU-13.1: Work closely with local and regional water providers to ensure high quality water supplies are available for the community.

Policy LU-13.2: Actively promote water conservation programs aimed at reducing demand.

Policy LU-13.3: Encourage exploration and use of deep underground wells to reduce reliance on treatable water.

Goal LU-14: Wastewater: Ensure a wastewater system for existing and future development.

Policy LU-14.1: Work closely with local service providers to ensure an adequate wastewater system for existing and future development is in place.

Policy LU-14.2: Ensure development approval is directly tied to commitments for the construction or improvement of primary water, wastewater, and circulation systems.

Goal LU-16: Solid Waste: Reduce the amount of waste material entering regional landfills with an efficient and innovative waste management program.

Policy LU-16.1: Work closely with local service providers to ensure adequate solid waste disposal, collection, and recycling services.

Policy LU-16.2: Increase recycling, composting, source reduction, and education efforts throughout the city to reduce the amount of solid waste requiring disposal at landfills.

Goal LU-17: Utilities and Communications: Encourage provision of power and communication systems that provide reliable, effective and efficient service for San Marcos.

Policy LU-17.2: Require all new development and redevelopment to provide the technology to support multiple telecommunications facilities and providers such as multi-media products, wireless technologies, and satellite communications.

Policy LU-17.3: The City shall prohibit above ground utility equipment within any of the pedestrian pathway and street frontage areas. All above ground utilities shall be placed either within; “wet closets”

within the buildings, underground vaults, or behind buildings where they are not visible. The developer shall be responsible to contact the applicable utility agencies in advance to coordinate utilities prior to approval of the final street improvement plans for both public and private street frontages and prior to submittal of building permits.

Policy LU-17.4: Require utility location to be shown on all site development plans at the time of development/project application.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10, the project is consistent with the applicable goals and policies pertaining to utilities and service systems.

### 3.17.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the project would:

Threshold No. 1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Threshold No. 2: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Threshold No. 3: 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.

Threshold No. 4: 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.

Threshold No. 5: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

### 3.17.4 Project Impact Analysis

***Threshold No. 1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.***

#### Water

The proposed project development would be served by VWD. Multifamily residential sites in the VWD are typically served by on-site private water systems, which consist of separate fire and domestic systems. Private fire systems typically supply on-site fire hydrants and building fire sprinkler systems and require a backflow preventer at the connection to the public water system.

The project site lies completely within VWD's existing 855 Zone. Water service to existing development in the area is from connections to the 855 Zone, which includes 12-inch lines in Linda Vista Drive and South Pacific Street, and 8-inch lines in La Mirada Drive and South Las Posas Road.

The 2018 VWD Master Plan based its ultimate water demand planning on the City's approved General Plan land use designations, which for the project site is Industrial. Table 1 in the Water and Sewer Study prepared for the project (Appendix L) provides the average water demand generated both under the density planned for the 2018 Master Plan and with the proposed project. This table shows that the proposed project would increase the projected average water demand from the 2018 Master Plan land use by 73,703 gallons per day (gpd), from 26,552 gpd under the Industrial use, to 100,255 gpd under the proposed residential use (Appendix L).

Water service for potable residential use and fire service to the project site would be provided by VWD. The project would connect to existing 12-inch water lines in Linda Vista Drive and South Pacific Street. Additionally, the project would connect to and upsize approximately 1,458 feet of existing 8-inch ACP to 12-inch PVC along La Mirada Drive from South Las Posas Road to Pacific Street. Water connections are provided in three separate systems supplying the proposed residential areas independently. An 8-inch fire main water line and a 6-inch domestic potable water line would connect the proposed condominiums to existing water mains in La Mirada Drive and South Pacific Street. Water would connect to the proposed villas and rowhomes via a connection underneath each driveway entering at La Mirada Drive and the second connection at South Pacific Street. The proposed apartments would provide an 8-inch fire main water line and 6-inch domestic potable water line connecting underneath the driveway to existing infrastructure in La Mirada Drive and a second fire connection in South Las Posas Road. One water main connection would be made for the proposed affordable units. An 8-inch fire main and 6-inch domestic potable water line would connect the affordable units to an existing water main in Linda Vista Drive.

As described in Section 3.17.1, Existing Conditions, VWD receives its water from the SDCWA. SDCWA is San Diego County's predominant source of water, supplying from 75% to 95% of the region's water needs (SDCWA 2021). The population within the Water Authority's service area was approximately 3.3 million people in 2020 and is projected to increase to roughly 3.8 million people by 2045. The County of San Diego is expected to develop an additional 130,000 acres between 2020 and 2050, with the majority (125,000 acres) of development dedicated to residential land uses. These regional growth projections are based on the SANDAG Series 14 Regional Growth Forecast, developed for its 2019 Federal Regional Transportation Plan adopted by SANDAG's Board of Directors on October 25, 2019. In fiscal year 2020, total water demand in the Water Authority's service area was 463,128 acre-feet, of which 92% was for municipal and industrial use and 8% was for agricultural water use. By 2045, the Water Authority's total water demands are projected to reach 630,771 acre-feet. This projection accounts for planned future water conservation savings (SDCWA 2021).

A Water and Sewer Study was prepared by Vallecitos Water District (VWD) for the proposed project in November 2022 and is included as Appendix L to this EIR. This study determined that the project site would be served by the District 855 Zone resulting in static pressures ranging from 132 pounds per square inch to 141 pounds per square inch, and that this water pressure would be adequate to meet all domestic and landscape requirements for the proposed project. The estimated total water use for the proposed project is 100,255 gpd. As concluded in Appendix L, VWD currently has water capacity available to serve the project as proposed with the conditions outlined in the Water and Sewer Study.

As outlined in Section 3.12, Population and Housing, of this EIR, development of 449 residential dwelling units at the project site would generate approximately 1,388 people. Although not all residents of the development would be new to the City of San Marcos, residential development on the project site would still result in unplanned growth for the City, as a residential land use for the project site was not accounted for in the City's General Plan since the

project site is zoned for Industrial use. Development of the project is unlikely to directly induce further population growth in the area. This is because the area surrounding the project site is already developed. Further, because the proposed project site is in an infill area with existing roads and utilities, no indirect impacts associated with the extension or construction of roads or expansion of public utilities are expected to occur as a result of the proposed project. The City of San Marcos is forecasted to grow from 98,915 persons in 2020 to 109,095 persons in 2035, which is a population increase of 10,180 (SANDAG 2013). Additionally, SANDAG allocated 3,116 housing units to the San Marcos area for the 2021–2029 Housing Element Cycle (SANDAG 2020). Approval of the proposed project would help the City accommodate the substantial population growth projected to occur within the City and the need for housing. Additionally, the City of San Marcos charges fees to process plans submitted for residential projects and to finance the provision of important services that are needed to accommodate housing and population growth. Fees and exactions are used to finance public facilities, including water and sewer infrastructure.

Therefore, due to the location of the project site in an urbanized area that is currently served by existing facilities, and based on the information outlined above, the proposed project would not require or result in the relocation or construction of new water facilities that could cause significant environmental impacts to water services. Impacts would be less than significant.

### Wastewater

As described above, the project proposes development of 449 residential units, which would increase the intensity of uses on the project site and result in increased wastewater generation. A Water and Sewer Study was prepared by Vallecitos Water District for the proposed project and is included as Appendix L to this EIR.

Similar to water generation, the 2018 VWD Master Plan based its ultimate wastewater generation planning on the City's General Plan land use designations, which for the project site is Industrial. Table 4 in Appendix L provides the average wastewater flow generated both under the density planned for the 2018 Master Plan and with the proposed project. This table reflects that the project would increase the projected average wastewater generation from the 2018 Master Plan land use assumptions by 55,637 gpd, from 23,233 gpd under the existing Industrial land use designation to 55,637 gpd under the proposed project.

The Water and Sewer study modeling results show that no deficiencies were identified under the currently approved density under peak wet weather flows during ultimate build-out conditions of the project. Lift stations are sized for peak wet weather flow with manufacturer's recommended cycling times for pumping equipment. Since the proposed project is not located in a sewer shed that is served by a lift station, there would be no lift station upgrade requirements for this project (Appendix L).

There are existing gravity sewer lines on all sides of the project site, including 8-inch gravity sewer lines in South Pacific Street and La Mirada Drive, a 15-inch sewer line in Linda Vista Drive, and parallel 10-inch and 18-inch sewer lines in South Las Posas Road. These gravity sewers all convey flow to Las Posas Road where they are conveyed south to San Marcos Boulevard and eventually to District Lift Station Number 1. Sewer service would connect to three separate sewer systems within the project site. The proposed condominiums would provide two 8-inch connections to the existing 8-inch sewer main in La Mirada Drive. The proposed apartments would connect an 8-inch sewer line to the either existing 10-inch or 15-inch sewer main in South Las Posas Road. The proposed affordable units would connect one 8-inch sewer line to the existing 15-inch line in Linda Vista Drive (Appendix L). Buildout of the proposed project would generate approximately 55,637 gpd of wastewater (Appendix L).

Wastewater generated by the proposed project would be treated by the Meadowlark Water Reclamation Facility. MRF has a capacity of 5 MGD, with a wet weather treatment capacity of 8 MGD, and treats wastewater at 0.25 MGD. It is expected that the MRF would be able to adequately treat wastewater flows from the proposed project, and therefore new wastewater treatment facilities would not be needed.

The City requires that VWD provide a letter of Sewer Availability for proposed developments within VWD. VWD conducted a sewer study for the proposed development to determine whether the current infrastructure is sufficient to accommodate the development project, and/or to provide recommendations for capital improvements to provide service. As concluded in the Water and Sewer Study (Appendix L), the District currently has sewer capacity available to serve the project as proposed with conditions outlined in the Water and Sewer Study. The applicant would be required to pay all applicable Wastewater Capital Facility fees in effect at the time service is committed in accordance with District rules and regulations. Acceptance by VWD of all wastewater facilities required to be constructed to service the project would also be required. With implementation of City and VWD requirements for sewer service, and considering the scope of existing and proposed infrastructure, the proposed project is not anticipated to exceed current capacities or significantly impact existing wastewater treatment systems. Further, to the extent the proposed project will require or result in the relocation or construction of sewer facilities, the construction of such infrastructure has been considered throughout this EIR (e.g., within the project description, construction assumptions, etc.), and would not cause significant environmental effects. Therefore, impacts relative to wastewater services would be less than significant.

### Stormwater Drainage

Development of the proposed project would increase the impervious area on site and increase stormwater runoff in comparison to existing conditions. However, as described in Section 3.9 of this EIR, storm drainage components recommended by the Preliminary Drainage Study (Appendix E) would properly handle runoff to meet regulatory requirements and to ensure that post-development run-off quantifies rates that are similar to or less than pre-development conditions.

Storm water arrives on site via natural rainfall only. Rainfall runoff from the site typically only occurs during a significant storm event. Storm water that does accumulate on site generally drains in a south-easterly direction toward the northwest corner of Linda Vista Drive and South Las Posas Road. This drainage is collected in a corrugated metal pipe riser that drains to an 11-foot by 7-foot reinforced concrete box in South Las Posas Road, and eventually flows downstream and discharges to San Marcos Creek. The remainder of the site surface drains to the surrounding streets. All surrounding streets drain via gutter flow to the same corner (South Las Posas Road and Linda Vista Drive) where runoff is collected by a pair of curb inlets that drain into the same 11-foot by 7-foot reinforced concrete box in South Las Posas Road. There is no off-site run-on to the project site. Per Municipal Separate Storm Sewer System Permit requirements, stormwater flows on site would be conveyed to biofiltration basins and underground storage systems throughout the project site, where water would be treated prior to being discharged. The project has considered stormwater flows and designed the grading plan to direct all surface runoff to catch basins in private drives and drive aisles. Once captured, stormwater would be conveyed through a series of pipes and storm water quality facilities and conveyed to the existing box culvert in South Las Posas Road. Treated runoff would follow the same drainage pattern as currently exists. Storm drainage components would properly handle runoff to meet regulatory requirements and to ensure that post-development run-off quantifies rates that are similar to or less than pre-development conditions. The proposed project would incorporate appropriate design of on- and off-site drainage facilities and would prepare and implement Best

Management Practices in accordance with a stormwater pollution prevention plan during construction and Stormwater Quality Management Plan, for post-development.

Implementation of all recommendations from the Preliminary Drainage Study and SWQMP and development-specific drainage plans would ensure the project would not substantially exceed storm water drainage capacity or result in substantial polluted runoff. The construction of such improvements has been considered throughout this EIR (e.g., within the project description, construction assumptions, etc.), and has not been identified to cause significant environmental effects. Therefore, impacts would be less than significant. Please refer to Section 3.9 for additional discussion related to drainage.

### Electric Power

As discussed in Section 3.5 of this EIR, implementation of the proposed project would not result in inefficient, wasteful, or unnecessary electricity use. Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and HVAC) would be provided by SDG&E. The amount of electricity used during construction of the proposed project would be minimal because typical demand stems from the use of electronic equipment in addition to electrically powered hand tools. The majority of the energy used during construction would be from petroleum. The electricity used for construction activities would be considered temporary and minimal.

Project operation would require electricity for multiple purposes, including cooling, lighting, appliances, and various equipment. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. The project is estimated to have a total electrical demand of approximately 2.49 million kilowatt-hours of electricity per year. For comparison, the existing Industrial land use/zoning is estimated to use approximately 14.02 million kilowatt-hours of electricity per year (Appendix B). Therefore, implementation of the proposed project would result in the consumption of less electricity than compared to development under the existing zoning. Additionally, the project would be required to implement, as applicable, the City's Climate Action Plan Consistency Checklist measures that would reduce operational electricity consumption, including PDF-GHG-5 (install electric or solar water heater).

The project would be required to include various on-site features and measures to reduce the proposed project's energy consumption, which includes incorporating zero net energy features into the building design and developing consistent with every mandatory project design feature in the Climate Action Plan Consistency Worksheet. The project would be built under the 2019 Title 24 standards or newer standards. 2019 Title 24 homes would use about 53% less energy than those under the 2016 Title 24 standards. Additionally, the project would be required to install smart meters and programmable thermostats, cool roof materials, efficient lighting in all buildings and light control systems, where practical, which would reduce lighting energy by 20%.

Electricity would be provided by SDG&E. Electrical facilities throughout the City include a combination of aboveground and underground electrical distribution lines and utilities structures. The proposed project would require constructing private utility lines to connect to existing electrical lines in the area. Additionally, construction of the project proposes undergrounding of approximately 1,400 feet of existing overhead power line at the northern boundary of the project site, along La Mirada Drive.

Undergrounding this transmission line is not anticipated to result in a significant environmental effect. Undergrounding would generally reduce aesthetic impacts and improve public safety within an already urbanized

area. Construction impacts associated with undergrounding would be temporary and would occur within the existing right-of-way. Associated construction activities would be addressed through City conditions required of the project.

In summary, although electricity consumption would increase at the project site over current, vacant conditions, electrical power consumption is expected to be less than that of an industrial development under the site's current land use/zoning designations. Residential development on site is not expected to exceed existing capacity of servicing infrastructure. Undergrounding of existing infrastructure may be required but would not result in a significant impact. Therefore, implementation of the proposed project would not require or result in the relocation or construction of expanded electric power facilities and impacts would be less than significant.

### Natural Gas

As discussed in Section 3.5, natural gas is not anticipated to be required during construction of the proposed project. The proposed residential uses are to use approximately 3.27 million kilobtus (kBtu) of natural gas per year, equivalent to 32,669 therms of natural gas per year. For comparison, the existing Industrial land use/zoning is estimated to use approximately 14.28 million kBtu of natural gas per year equivalent to 142,810 therms of natural gas per year (Appendix B). Therefore, the proposed project would consume less natural gas when compared to development under the existing zoning. Further, the project would be required to implement project design feature(s) and comply with green building standards to reduce energy consumption.

As described above, natural gas would be provided by SDG&E. SDG&E maintains a gas distribution system within La Mirada Drive, South Las Posas Road, Linda Vista Drive, and Pacific Street, which would serve the project site. Due to existing SDG&E infrastructure in the project area, the project is expected to be adequately served by SDG&E. However, a will-serve letter from SDG&E would be required to ensure service needs are met. For these reasons, implementation of the proposed project would not require or result in the relocation or construction of new or expanded natural gas facilities, and impacts would be less than significant.

### Telecommunications

Communications systems for telephones, computers, and cable television are serviced by utility providers such as AT&T, Cox, Spectrum (formerly Time Warner), and other independent cable companies. The City's fiber-optic network is facilitated by a 72-strand fiber-optic line that runs on various streets throughout the City. All major arterials in the City have implemented fiber optics. No specific systems upgrades are proposed or anticipated for the proposed project. Due to the existing infrastructure served in the surrounding project area, the proposed project would not result in impacts associated with the construction or expansion of telecommunications, and impacts are determined to be less than significant.

### ***Threshold No. 2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

As discussed in response to Threshold No. 1, the proposed project would be served by VWD. Per the Water and Sewer Memorandum (Appendix L), the proposed project is anticipated to use an estimated 100,255 gpd of water, including an estimated open space water use of 3,620 gpd. This equates to approximately 114 acre-feet/year.

As discussed above, MWD's UWMP shows water supplies will be available to meet current and future demands of the region. With a projected annual water demand of 5,234,000 acre-feet/year in 2020, the MWD UWMP demonstrates that, with implementation of required conservation measures, MWD has supply capabilities sufficient to meet expected demands through 2040 under normal, single dry, and multiple dry water years (MWD 2016). The



114.6-acre-feet/year demand generated by the project would present an insignificant increase in water demand relative to the annual water demand projected by the MWD's UWMP.

Further, the project site would be developed in compliance with the California Green Building Code, which implements water efficiency standards for appliances and fixtures. Compliance with CALGreen would further reduce project water usage in combination with VWD and MWD's ongoing water conservation practices. As concluded in Appendix L, VWD currently has water capacity available to serve the project as proposed with the conditions outlined in the Water and Sewer Study. The project would be required to pay all applicable Water and Wastewater Capital Facility Fees in effect at the time service is committed in accordance with the District rules and regulations. Compliance with these regulations and conservation measures will ensure sufficient water supplies are available to service the proposed project. Impacts to available water supplies would be less than significant.

***Threshold No. 3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

As discussed under Threshold No. 1, wastewater generated by the proposed project would be treated by MRF. MRF has a capacity of 5 MGD, with a wet weather treatment capacity of 8 MGD, and treats wastewater at 0.25 MGD. The proposed project is estimated to generate 55,637gpd of wastewater, or approximately 1.49% of the MRF 5 MDG capacity. It is expected that the MRF would be able to adequately treat wastewater flows from the project.

As described above, sewer facilities to serve the project would require the construction of private on-site sewer lines connecting to the public system at one or more locations. As concluded in Appendix L, VWD currently has sewer capacity available to serve the project as proposed with the conditions outlined in the Water and Sewer Study. As discussed in the Water and Sewer Memorandum (Appendix L), the applicant of the project would be required to pay all applicable Wastewater Capital Facility fees in effect at the time service is committed in accordance with District rules and regulations. With implementation of City and VWD requirements for sewer service, and considering the scope of existing and proposed infrastructure, the proposed project is not anticipated to exceed current capacities or significantly impact existing wastewater treatment systems. Therefore, impacts relative to the provision of wastewater services would be less than significant.

***Threshold No. 4: 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?***

Construction of the proposed project would result in the generation of solid waste such as scrap lumber, concrete, residual wastes, packing materials, and plastics. Operation of the proposed project would represent an increase in intensity of uses and generation of solid waste on the project site compared to existing conditions. Solid waste generated by the project would be serviced by EDCO, and solid waste would then be transferred to Sycamore Landfill. According to CalRecycle, the facility has a daily permitted capacity of 5,000 tons per day for solid waste. As of December 2016, the remaining capacity of Sycamore Sanitary Landfill is 147,908,000 cubic yards, or approximately 40 million tons, with an anticipated closure date of 2042 (CalRecycle 2019b). Further, four other landfills in the County accept municipal solid waste, including Borrego Landfill, Miramar Landfill, Otay Landfill, and Romona Landfill.

The anticipated operational solid waste generation from the proposed project was estimated using CalRecycle's Estimated Solid Waste Generation Rates (CalRecycle 2019b). It is estimated that the project (449 units) would generate approximately 5,491.27 pounds of solid waste per day (12.23 pounds per household). This does not consider any waste diversion through recycling. According to CalRecycle, the City of San Marcos has a disposal

rate target of 8.9 pounds per person per day. If the City meets this target, the City is considered in compliance with the 50% diversion requirement of AB 939. The most recent data from CalRecycle identifies the annual per capital disposal rate is 5.4 pounds per person per day (CalRecycle 2019b). Thus, the City is exceeding their targets for diversion.

The project would be required to comply with applicable state and local regulations related to solid waste, waste diversion and recycling at the time of development. Implementation of the proposed project is not expected to generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and impacts related to solid waste are determined to be less than significant.

***Threshold No. 5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

As described in response to Threshold No. 4, the proposed project would be required to comply with all federal, state, and local statutes and regulations related to solid waste, diversion of waste, and recycling. All solid waste facilities, including landfills, require solid waste facility permits to operate. In San Diego County, Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440 et seq.) authorizes the County Department of Environmental Health, Local Enforcement Agency to issue solid waste facility permits. Sycamore Sanitary Landfill is a permitted facility and EDCO is a licensed hauler. For these reasons, and the reasons stated above, impacts related to solid waste as a result of project implementation would be less than significant.

### 3.17.5 Mitigation Measures

Impacts to utilities and service systems would be less than significant, and no mitigation is required.

### 3.17.6 Conclusion

Project implementation would result in an increase in the need for water, wastewater, stormwater, electrical power, natural gas, telecommunications, and solid waste services. However, as outlined in the project impact analysis above, Section 3.17.4, it is determined that there would be adequate existing facilities to service the project, and impacts to/from such utilities and service systems would be less than significant.

## 3.18 Wildfire

This section of the Environmental Impact Report (EIR) evaluates the potential impacts associated with wildfire for the proposed Pacific Specific Plan Project (proposed project). This section presents the existing conditions, regulatory framework, impacts of the proposed project on the environment, and proposed mitigation measures to mitigate any identified significant wildfire-related impacts. Fire protection services for the project have been addressed in Section 3.13, Public Services.

The analysis herein relies on the following technical studies and supporting documentation:

- Fire Protection Plan for the Pacific Project, prepared by Dudek, February 2023 (Appendix N to this EIR)

Table 3.18-1 summarizes the wildfire analysis, by threshold.

**Table 3.18-1. Wildfire Summary of Impacts**

| Threshold of Significance   | Project-Level Impact  | Cumulative-Level Impact | Significance Determination |
|---|-----------------------|-------------------------|----------------------------|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:  |                       |                         |                            |
| No. 1. Substantially impair an adopted emergency response plan or emergency evacuation plan.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.  | Less than Significant | Less than Significant   | Less than Significant      |
| No. 3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. | Less than Significant | Less than Significant   | Less than Significant      |
| No. 4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.   | Less than Significant | Less than Significant   | Less than Significant      |

### 3.18.1 Existing Conditions

The entirety of the project site lies within the local responsibility area as a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ) by the California Department of Forestry and Fire Protection (CAL FIRE) and High Fire Hazard Severity Zone, as designated by the City of San Marcos in the City’s General Plan Safety Element. The Fire Protection Plan (FPP) prepared for the project (included as Appendix N to this EIR), and the analysis herein, follow the fire hazard determination made by the City.

The project site is located in an urban setting and is considered an infill site. The project site is currently vacant, has no existing impervious areas, and site surface conditions generally consist of rolling unimproved earthen terrain, with native grasses and vegetation. The project site is immediately bordered by South Las Posas Road to

the east, Linda Vista Drive to the south, La Mirada Road along the northern boundary and Pacific Street abuts the property's western boundary.

Surrounding land uses include industrial uses to the north, south, and west, and commercial uses to the east, specifically the Grand Plaza shopping center is located directly across South Las Posas Road. The 24-acre Bradley Park is located across from the project site's southwestern corner. Residential uses are located to the south and west of Bradley Park. Surrounding land uses outside of the immediately adjacent industrial and commercial land uses include designated parks, single and multifamily residential, and schools/educational facilities. The closest freeway is State Route 78 located approximately 0.44 miles north of the project site.

Dudek conducted a Project site evaluation on November 9, 2021, in order to confirm/acquire site information, document existing site conditions, and determine potential actions for addressing the protection of the proposed project's structures. While on site, Dudek's fire planners assessed the area's topography, natural vegetation, and fuel loading, surrounding land use, and general susceptibility to wildfire. The project site's existing setting as it relates to wildfire is summarized below.

### Site Characteristics and Fire Environment

Fire environments are dynamic systems and include many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. Areas of naturally vegetated open space are typically comprised of conditions that may be favorable to wildfire spread. The three major components of the fire environment are topography, climate, and vegetation (fuels). The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a fire at any given moment. It is important to note that wildland fire may transition to urban fire if structures are receptive to ignition. Structure ignition depends on a variety of factors and can be prevented through a layered system of protective features including fire-resistive landscapes directly adjacent to the structure(s), application of known ignition resistive materials and methods, and suitable infrastructure for firefighting purposes. Understanding the existing wildland vegetation and urban fuel conditions on and adjacent to the project site is necessary to understand the potential for fire within and around the proposed project (Appendix N).

#### Topography

The project site is relatively flat, ranging in elevation from approximately 527 feet above mean sea level in the southeast portion of the project area to 551 feet in the northwest corner of the project site.

#### Climate

North San Diego County and the project area are influenced by the Pacific Ocean and are frequently under the influence of a seasonal, migratory subtropical high-pressure cell known as the "Pacific High." Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds. The average high temperature for the project area is approximately 76°F, with daily highs in the summer and early fall months (June–September) exceeding 88°F. Precipitation typically occurs between December and March with an average rainfall of 16.22 inches (Appendix N).

The prevailing wind pattern is from the west (onshore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea), and at night winds are from the northeast (land), averaging 2 mph. During the summer season, the diurnal winds may

average slightly higher (approximately 16 mph) than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds.

Typically, the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in San Diego County exceeded 30 mph and may exceed 50 mph during extreme conditions. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. Santa Ana winds are warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds generally coincide with the regional drought period and the period of highest fire danger. The project site is affected by strong winds, such as Santa Ana winds (Appendix N).

### Vegetation Fuels

Seven vegetation communities or habitat types occur within the project site and within the biological study area: vernal pools, Diegan coastal sage scrub (including disturbed and baccharis-dominated), native grassland, non-native grassland, disturbed habitat, and developed. The acreage of each on-site vegetation community or land cover type is provided in Table 1 in the FPP (Appendix N to this EIR) and in Section 3.3, Biological Resources.

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, the native shrub species that compose the coastal sage scrub and chaparral plant communities on site are considered to higher potential hazards (higher intensity heat and flame length) than grass-dominated plant communities (fast-moving, but lower intensity) if ignition occurred. The corresponding fuel models for each of these vegetation types are designed to capture these differences.

Vegetation plays a significant role in fire behavior and is an important component of the fire behavior models discussed in this EIR section and throughout the FPP prepared for the project (Appendix N). Fire presence and absence at varying cycles or regimes disrupts plant succession, setting plant communities to an earlier state where less fuel is present for a time as the plant community begins its succession again. High-frequency fires tend to convert shrublands to grasslands or maintain grasslands, and fire exclusion tends to convert grasslands to shrublands over time as shrubs sprout back or establish and are not disturbed by repeated fires. In general, biomass and associated fuel loading will increase over time, assuming that disturbance (e.g., fire, grazing, or farming) or fuel reduction efforts are not diligently implemented. It is possible to alter successional pathways for varying plant communities through manual alteration.

### Fire History

Fire History data provides valuable information regarding fire spread, fire frequency, ignition sources, and vegetation/fuel mosaics across a given landscape. One important use for this information is as a tool for pre-planning. It is advantageous to know which areas may have burned recently and therefore may provide a tactical defense position, what type of fire burned on the site, and how a fire may spread. Fire history represented in the FPP (Appendix N) uses the Fire and Resource Assessment Program database. The Fire and Resource Assessment Program summarizes fire perimeter data dating to the late 1800s but is incomplete due to the fact that it only includes fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the twentieth

century (Appendix N). However, the data does provide a summary of recorded fires and can be used to show whether large fires have occurred in the project area, which indicates whether they may be possible in the future. According to available data from the CAL FIRE in the Fire and Resource Assessment Program database, 26 fires have burned within a 5-mile radius of the project site, with no fires occurring on the project site since the beginning of the historical fire data record. Recorded wildfires within 5 miles range from approximately 12 acres to 40,248 acres (1943 Fire). The second-largest fire (Harmony Fire-1996) was larger than 9,359 acres, and the average fire size is 848 acres (not including the 1943 Fire and Harmony Fire or fires smaller than 10 acres). The Cocos Fire (2014) is the most recent fire, which occurred approximately 2.5 miles southeast of the project site. Smaller fires (less than 10 acres) are not included in the FPP analysis but may be recorded with the San Marcos Fire Department (SMFD).

Based on an analysis of this fire history data set, specifically, the years in which the fires burned, the average interval between wildfires in the area was calculated to be 3 years with intervals ranging between 0 and 17 years. Based on this analysis, it is expected that wildland areas within 5 miles of the project site would be subject to wildfire approximately every 3 years with the realistic possibility of shorter interval occurrences, as observed in the fire history record. However, this fire return interval does not equate to the project being threatened every 4 years or less, but to wildfires burning in fuels within 5 miles of the project site. Based on fire history, wildfire risk for the project site is associated primarily with a Santa Ana wind-driven wildfire burning or spotting onto the project site from the northeast, although a fire approaching from the south during more typical on-shore weather patterns is possible. However, because the fuel bed is minimal and occurs within an entirely developed and urban area, the wildfire threat is considered very low. Even if a vegetation fire did ignite on the post-project open space area, fuels, terrain, and extremely short duration for the wildfire based on lack of fuels to sustain it would result in a minimal threat.

### Emergency Response and Service

The project site is located within the jurisdiction of the SMFD, and consequently, SMFD provides the initial response. The SMFD jurisdictional response area encompasses approximately 33 square miles with a population of approximately 96,000 residents. The SMFD currently operates four Fire Stations, two of which are analyzed herein due to their proximity to the project site and could respond to an incident at the project site. Primary response would be from SMFD Station 2, with SMFD Station 1 and Vista Fire Department Station 4 responding as necessary (Appendix N).

Within the area's emergency services system, fire and emergency medical services are provided by Fire Departments (San Marcos Fire Department and Vista Fire Department) County Service Areas, and CAL FIRE. Generally, each agency is responsible for structural fire protection and wildland fire protection within their area of responsibility. However, mutual aid agreements enable non-lead fire agencies to respond to fire emergencies outside their district boundaries. In the project area, fire agencies cooperate on a statewide master mutual aid agreement for wildland fires, and there are mutual aid agreements in place with neighboring fire agencies (North County Boundary Drop Program) that typically include interdependencies that exist among the region's fire protection agencies for structural and medical responses but are primarily associated with the peripheral "edges" of each agency's boundary. These agreements are voluntary, as no local governmental agency can exert authority over another (Appendix N).

Table 3.18-2 presents a summary of the location, fire apparatus equipment, staffing levels, maximum travel distance, and estimated travel time for the two nearby SMFD stations that would respond to a fire or medical emergency at the project site. Travel distances are derived from Google road data while travel times are calculated applying the nationally recognized RAND Corporation formula used by the Insurance Services Office Public Protection Classification Program's Response Time Standard:  $(T=0.65 + 1.7D)$ , where T=time and D=distance). The response travel time formula discounts speed for intersections, vehicle deceleration, and acceleration, and does not include turnout donning time.

**Table 3.18-2. SMFD Responding Stations**

| Station        | Location  | Equipment   | Staffing    | Maximum Travel Distance <sup>a</sup> | Travel Time <sup>b</sup> | Total Response Time <sup>c</sup> |
|----------------|---|---|-------------|--------------------------------------|--------------------------|----------------------------------|
| SMFD Station 1 | 180 W. Mission Road San Marcos, California          | <ul style="list-style-type: none"> <li>▪ Paramedic Engine Co.</li> <li>▪ Pierce 100-foot MDL Tiller and Body Assembly quintuple combination pumper.</li> <li>▪ Type 3 Engine</li> <li>▪ Paramedic Ambulance</li> <li>▪ Battalion Chief</li> </ul> | On duty: 10 | 2.33 mi.                             | 4 minutes 37 secs.       | 6 minutes 37 secs                |
| SMFD Station 2 | 1250 S. Rancho Santa Fe Road San Marcos, California | <ul style="list-style-type: none"> <li>▪ Paramedic Engine Co.</li> <li>▪ Paramedic Ambulance</li> </ul>   | On-duty: 5  | 2.23 mi.                             | 4 minutes 26 secs.       | 6 minutes 26 secs                |
| VFD Station 4  | 2121 Thibodo Road Vista, California                 | <ul style="list-style-type: none"> <li>▪ Paramedic Engine Co.</li> <li>▪ Paramedic Ambulance</li> </ul>   | On-duty: 5  | 2.73 mi.                             | 5 minutes 17 secs.       | 7 minutes 17 secs                |

**Notes:**

- <sup>a</sup> Distance measured to the central portion of the project site, refer to Figures 9 to 11 in Appendix N to this EIR.
- <sup>b</sup> Application of the Insurance Services Office formula,  $T=0.65+1.7(\text{Distance})$ , a 35-mph travel speed, and does not include turnout time.
- <sup>c</sup> Application of the Insurance Services Office formula,  $T=0.65+1.7(\text{Distance})$ , a 35-mph travel speed, plus an additional 2 minutes for dispatch and turnout time.

Based on the project site location in relation to existing SMFD stations, travel time to the project site for the first responding engine from SMFD Station 2 is 4 minutes and 26 seconds to the central portion of the project site, entering from the furthest ingress/egress point on La Mirada Drive. Travel time for secondary response is approximately 4 minutes and 37 seconds. However, travel time does not account for dispatch and turnaround time. In order to estimate a total response time, an additional 2 minutes were added to the total travel time. This results in an estimated response of 6 minutes and 26 seconds for project from SMFD Station 2. The total secondary response for SMFD Station 1 would be approximately 6 minutes and 37 seconds, and approximately 7 minutes and 17 seconds from VFD Station 3. SMFD's internal response time standard is to have the first arriving fire apparatus on site within 8 minutes (average maximum initial response of no more than 8 minutes for fire apparatus and 9 minutes for ambulance, 90% of calls).

## 3.18.2 Regulatory Setting

Existing federal, state, and local regulations related to wildfire that are applicable to the proposed project are summarized below.

## Federal

### International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what protective measures are required for fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

### National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. National Fire Protection Association standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or “codes” unless adopted or referenced as such by the California Fire Code (CFC) or local fire agency.

## State

### California Fire Code

The CFC is Chapter 9 of Title 24 of the California Code of Regulations. The CFC is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years. SMFD has adopted the CFC by reference in its own Fire Code.

### State Responsibility Area Fire Safe Regulations (California Code of Regulations, Title 14 Natural Resources, Department of Forestry Fire Protection)

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in State Responsibility Areas. Title 14 regulates that the future design and construction of structures, subdivisions, and developments in State Responsibility Areas shall provide for basic emergency access and perimeter wildfire protection measures.

### California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California’s resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local



level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the California Code of Regulations and the California Public Resources Code (PRC).

### California Strategic Fire Plan

In 2010, the State Board of Forestry and Fire Protection issued the California Strategic Fire Plan, a statewide fire plan developed in concert between the State Board of Forestry and Fire Protection and CAL FIRE. Goals included improved availability and use of information on hazard and risk assessment, land use planning, development of shared vision in plans such as Community Wildlife Protection Plans, establishment of fire resistance in assets at risk, shared vision among fire protection jurisdictions and agencies, levels of suppression, and post-fire recovery.

In support of this plan, several policies are noted, including creation of defensible space, improving home fire resistance, fuel hazard reduction that creates resilient landscapes and protects wildland and natural resources, adequate and appropriate fire suppression, and commitment by individuals and communities to wildfire prevention and protection through local planning.

The California Strategic Fire Plan's several objectives are as follows: the state will produce tools such as updates to the CAL FIRE VHFHSZ maps, fire history, and data on values and assets at risk; assist government bodies in the development of a comprehensive set of wildland and Wildland Urban Interface protection policies; identify minimum key components necessary to achieve a fire safe community; coordinate CAL FIRE Unit Fire Plans with Community Wildlife Protection Plans; improve regulatory effectiveness, compliance monitoring, and reporting pursuant to PRC 4290 and 4291; and participate in public education efforts concerning regulation, prevention measures, and preplanning.

### Local

#### California Disaster and Civil Defense Master Mutual Aid Agreement

As provided for in the California Emergency Services Act, this agreement was developed in 1950 and adopted by all 58 California counties. This statewide mutual aid system is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation. San Diego County is located in Mutual Aid Region 6 of the state system, which also includes Imperial, Riverside, San Bernardino, Inyo, and Mono Counties.

#### San Diego County Emergency Plan

The San Diego County Emergency Plan is a comprehensive emergency management system that provides for a planned response to disaster situations associated with natural disasters, technological incidents, and nuclear defense operations. The Plan includes operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization and describes the overall responsibilities for protecting life and property and assuring the overall well-being of the population. The plan also identifies the source of outside support that might be provided (through mutual aid and specific statutory authorities) by other jurisdictions, state and federal agencies and the private sector.

## San Marcos Fire Department Hazard Risk Analysis and Wildland Urban Interface Community Wildfire Protection Plan

The Community Wildfire Protection Plan, adopted in December 2007 (SMFD 2007), was developed by the SMFD with guidance from the County of San Diego, California Department of Forestry and Fire Protection and the United States Forest Service. The Community Wildfire Protection Plan supplements San Diego County, Department of Planning and Land use documents. SMFD also published the Hazard Risk Analysis for internal City use, incorporating new and existing information relating to wildfire risk within the City to better quantify true risk and management needs. The Hazard Risk Analysis quantifies, clarifies, and manages the wildland urban interface responsibility and meets the requirements of the federal Healthy Forests Restoration Act of 2003 for community fire planning.

### City of San Marcos, Ordinance 2003-1216

The City Ordinance 2003-1216 amends Chapter 17.64 of the Municipal Code to adopt the most recent version of the California Fire Code. This ordinance also requires all buildings or structures to provide and maintain an effective fuel modification zone of 150 feet.

### City of San Marcos General Plan

#### Land Use and Community Design Element

The following are applicable goals and policies from the City of San Marcos General Plan, Land Use and Community Design Element related to wildfire:

Goal LU-8: Ensure that existing and future development is adequately serviced by infrastructure and public services.

Policy LU-8.1: New development shall pay its fair share of required improvements to public facilities and services.

Policy LU-8.2: Promote development timing that is guided by the adequacy of existing and/or expandable infrastructure, services, and facilities.

Goal LU-10: Fire protection, emergency services, and law enforcement: Provide effective, high-quality and responsive services.

Policy LU-10.1: Provide demand-based fire-fighting and emergency medical services infrastructure, equipment, and personnel to provide a high level of fire, emergency medical, and law enforcement service in San Marcos to meet existing and future demands.

Policy LU-10.2: Work closely with the County of San Diego Sherriff's Department to determine and meet the community needs for adequate personnel, equipment and state-of-the-art technology to effectively combat crime, and meet existing and projected service demands.

Policy LU-10.3: Continue to conduct Public Outreach and education regarding fire safety and crime prevention within San Marcos.

## Safety Element

The Safety Element of the San Marcos General Plan contains the following goals and policies pertaining to wildfire that apply to the proposed project:

Goals S-3: Minimize injury, loss of life, and damage to property resulting from structure or wildland fire hazards.

Policy S-3.1: Require development to be located, designed and constructed to provide adequate defensibility and reduce the risk of structural loss and life resulting from wildland fires. Development will consider hazards relative to terrain, topography, accessibility and proximity to vegetation. One such provision for development to minimize the risk of structural loss and life shall be the inclusion of overhead fire sprinklers.

Policy S-3.2: Provide sufficient level of fire protection service to reduce risk from urban and wildland fire. Advocate and support regional coordination among fire protection and emergency service providers.

Policy S-3.3: Require development to provide additional access roads when necessary to provide for safe access of emergency equipment and civilian evacuation concurrently.

Policy S-3.4: Coordinate with fire protection and emergency service providers to assess fire hazards before and after wildfire events to adjust fire prevention and suppression needs, as necessary, commensurate with both short- and long-term fire prevention needs.

Goal S-5: Establish and maintain an effective emergency response program to respond to disasters and maintain continuity-of-life support functions during an emergency.

Policy S-5.3: Develop, implement, and maintain an effective evacuation program for areas of risk in the event of a disaster.

The proposed project's consistency with applicable General Plan goals and policies is discussed in Section 3.10, Land Use and Planning. As detailed in Section 3.10, the proposed project is consistent with the overall goals and policies of the General Plan pertaining to wildfire.

### 3.18.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to wildfire are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to wildfire would occur if the project would:

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

Threshold No. 1: Substantially impair an adopted emergency response plan or emergency evacuation plan.

Threshold No. 2: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Threshold No. 3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Threshold No. 4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

### 3.18.4 Project Impact Analysis

***Threshold No. 1: Substantially impair an adopted emergency response plan or emergency evacuation plan.***

As described in FPP prepared for the project (Appendix N to this EIR), the project site lies within an area considered a Non-High Hazard Severity Zone, as designated by the City of San Marcos and CAL FIRE. The existing project site is a vacant lot. Implementation of the proposed project would likely reduce the potential for wildfire hazards on site as a result of development and management of designated open space areas.

The project site is located within the jurisdiction of SMFD, and consequently, SMFD provides the initial response. The SMFD jurisdictional response area encompasses approximately 33 square miles with a population of approximately 96,000 residents. The SMFD currently operates four Fire Stations, two of which are analyzed herein due to their proximity to the project site and could respond to an incident at the project site. Primary response would be from SMFD Station 2, with SMFD Station 1 and VFD Station 4 responding as necessary (Appendix N). Within the area's emergency services system, fire and emergency medical services are provided by Fire Departments (San Marcos Fire Department and Vista Fire Department) County Service Areas, and CAL FIRE. Generally, each agency is responsible for structural fire protection and wildland fire protection within their area of responsibility. However, mutual aid agreements enable non-lead fire agencies to respond to fire emergencies outside their district boundaries. Table 3.18-2 presents a summary of the location, fire apparatus equipment, staffing levels, maximum travel distance, and estimated travel time for the two nearby SMFD stations that would respond to a fire or medical emergency at the project site.

Based on the project site location in relation to existing SMFD stations, travel time to the project site for the first responding engine from SMFD Station 2 is 4 minutes and 26 seconds to the central portion of the project site, entering from the furthest ingress/egress point on La Mirada Drive. Travel time for secondary response is approximately 4 minutes and 37 seconds. However, travel time does not account for dispatch and turnaround time. In order to estimate a total response time, an additional 2 minutes were added to the total travel time. This results in an estimated response of 6 minutes and 26 seconds for project from SMFD Station 2. The total secondary response for SMFD Station 1 would be approximately 6 minutes and 37 seconds and approximately 7 minutes and 17 seconds from VFD Station 3. SMFD's internal response time standard is to have the first arriving fire apparatus on site within 8 minutes (average maximum initial response of no more than 8 minutes for fire apparatus and 9 minutes for ambulance, 90% of calls). The project would conform with SMFD's internal response time standard and would not have an overall impact on SMFD's ability to meet its average response goals.

The SMFD estimates approximately 11,486 total annual calls (Nailon, pers. comm., 2021) and a City population of approximately 95,000 (SMFD 2021). The per capita call volume is roughly 0.12 for the City of San Marcos. As of 2020, the City of San Marcos has a person per household ratio of 3.09 (DOF 2020). Using this household ratio of 3.09, the development of 449 residential dwelling units at the Project site would generate approximately 1,388 people. The emergency service level analysis was based on the maximum occupancy level and the project is expected to generate roughly 167 calls per year, most of which are expected to be medical-related calls, consistent

with typical emergency call statistics. Service level requirements are not expected to be significantly impacted with the increase of approximately 167 calls per year or 0.5 calls per day for a station (SMFD Station 2) that currently responds to roughly 18 calls per day (6,502 calls per year) in its primary service area. Therefore, the project is not expected to cause a decline in SFMD's emergency response times. Additional response, rounding out the effective firefighting force (the manpower needed to effectively fight a structure fire and/or respond to serious medical emergency) would be provided by SMFD Stations 1 and VFD Station 4.

According to the City's General Plan Safety Element, the San Marcos Emergency Operations Plan governs the operations of the City during a disaster. This plan addresses response to moderate evacuation scenarios, including the identification of evacuation points and general routes (City of San Marcos 2012). The proposed project would be required to abide by the standards set forth in the San Marcos Emergency Operations Plan. Implementation of the proposed project is not expected to impact any roadway or staging areas that are identified in any emergency planning documents and would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As required under the California Fire Code, the proposed project would be required to present development plans that afford fire and emergency responders suitable fire access roads dimensions and surfaces (5 CFC Section 503.1 through Section 503.4), an adequate number of emergency rated entrances to the community (CFC Appendix D, Section D106), and entryway gate access for first responders (5 CFC, Section 503.6). The proposed points of entry and private driveways would be reviewed by SMFD and would be required to meet the qualifications for emergency access to and from the project site.

As outlined in the FPP prepared for the project (Appendix N), the project, once developed, would not facilitate wildfire spread and would reduce projected flame lengths to levels that would be manageable by firefighting resources for protecting the project's structures, especially given the ignition resistance of the structures and the planned ongoing maintenance of the entire site landscape.

As determined in the FPP, the project would conform with SMFD's internal response time standard and would not have an overall impact on SMFD's ability to meet its average response goals. The project would not conflict with any applicable emergency or evacuation plan, and it is determined that impacts related to impairment of an emergency response plan or emergency evacuation plan as a result of the proposed project would be less than significant.

***Threshold No. 2: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.***

As described in the FPP prepared for the project (Appendix N to this EIR) The project site lies within an area considered a Non-High Hazard Severity Zone, as designated by the City of San Marcos and CAL FIRE. Fire hazard designations are based on topography, vegetation, and weather, amongst other factors. The project site is within a developed City landscape, surrounded by urban land uses on all sides, and the project site is relatively flat.

With the conversion of the landscape to ignition-resistant development and the annual weed abatement on the preserved areas of the site, wildfires would not have fuels needed to spread on site. Given the climatic, vegetative, topographic characteristics, and local fire history of the area, the Project Site, once developed, is determined to not be subject to wildfires. The potential for off-site wildfire encroaching on or showering embers on site is considered very low (Appendix N).

Because the entire site will be provided annual weed abatement, there is no requirement for fuel modification zones. The Project owners will provide sitewide maintenance in the landscaped areas and will abate the preserved portions of the site by providing appropriate vegetation management to the satisfaction of the SMFD. Due to the

urban location of the site, and the existing and proposed topography of the site, implementation of the proposed project would not exacerbate wildfire risks resulting in exposing occupants to potential hazards. Therefore, impacts are determined to be less than significant.

***Threshold No. 3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.***

As previously described, the project site is an undeveloped lot that is relatively flat and shows signs of previous disturbance. The proposed redesignation of the project site from Industrial to Residential use would likely reduce the potential for wildfire hazards on site as a result of typical activities associated with each land use. The proposed project would not include associated infrastructure that may exacerbate fire risk. Additionally, the proposed project would be required to comply with all applicable state and local fire codes, including compliance with the California Fire Code as adopted by the City of San Marcos and SMFD, which require a design that affords fire and emergency responders suitable fire access roads dimensions and surfaces (5 CFC, Section 503.1 through 503.4); an adequate number of emergency rated entrances to the community (CFC Appendix D, Section D106); and entryway gate access for first responders (5 CFC Section 503.6). As determined in the FPP prepared for the proposed project (Appendix N to this EIR), SMFD's existing Stations 1 and 2 would adequately serve the project site while maintaining SMFD's response goals.

While the proposed project would require the installation of water sources and other underground utilities, these would not exacerbate fire risks, as these improvements would be constructed within an existing right-of-way or within the project site boundary. No overhead utilities are proposed as part of the project. The proposed project would not require the installation or maintenance of such infrastructure that would exacerbate fire risk, and therefore, impacts are determined to be less than significant.

***Threshold No. 4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.***

As described in Section 3.6, Geology and Soils, of this EIR, the potential for flooding and landslides on site is considered low due to the relatively flat terrain of the project site and surrounding area, and the site location in an urban part of the City.

As described in the FPP (Appendix N) with the conversion of the landscape to ignition-resistant development and the annual weed abatement on the preserved areas of the site, wildfires would not have fuels needed to spread on site.

Given the climatic, vegetative, topographic characteristics, and local fire history of the area, the project site, once developed, is determined to not be subject to wildfires. The potential for off-site wildfire encroaching on or showering embers on site is considered very low.

Due to the nature and location of the project site and the proposed project, implementation of the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. For the reasons outlined above, impacts are determined to be less than significant.

### 3.18.5 Mitigation Measures

Impacts related to wildfire would be less than significant, and no mitigation is required.

### 3.18.6 Conclusion

As analyzed above, no significant impacts related to wildfire were identified; thus, no mitigation measures are required. Impacts related to wildfire as a result of project implementation would be less than significant.

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## 3.19 Cumulative Effects

The California Environmental Quality Act (CEQA) requires an environmental impact report (EIR) to analyze cumulative impacts. The purpose of this section of the EIR is to explain the methodology for the cumulative analyses and present the potential cumulative effects of the proposed Pacific Specific Plan Project (proposed project).

Section 15355 of the CEQA Guidelines defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Section 15130 of the CEQA Guidelines provides guidance for analyzing significant cumulative impacts in an EIR. The discussion of cumulative impacts “need not provide as great detail as is provided for the effects attributable to the project alone,” but instead is to be “be guided by standards of practicality and reasonableness.” (CEQA Guidelines Section 15130[b]) The discussion should also focus only on significant effects resulting from the project’s incremental effects and the effects of other projects. According to Section 15130(a)(1), “an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.”

Cumulative impacts can result from the combined effect of past, present, and future projects located in proximity to the project under review. Therefore, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future developments whose impacts might compound or interrelate with those of the project under review.

### 3.19.1 Methodology

According to Section 15130(b)(1) of the CEQA Guidelines, a cumulative impact analysis may be conducted and presented by either of two methods:

- A. a list of past, present, and probable activities producing related or cumulative impacts; or
- B. a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

With the exception of the impact analyses of air quality and greenhouse gas emissions, the cumulative list approach has been used in this cumulative analysis, as discussed below. The cumulative impacts of air quality and greenhouse gas emissions have been evaluated using the summary of projections method because the geographic scope of such impacts are on an air basin and global scale.

### 3.19.2 Cumulative Projects

Based on information provided by the City of San Marcos (City) an inventory of past, present, and reasonably foreseeable future projects within the vicinity of the project site is presented in Table 3.19-1 and Figure 2-7, Cumulative Project Map.

**Table 3.19-1. Cumulative Projects**

| No.                       | Status             | Project Name/<br>Developer | Location   | Description  |
|---------------------------|--------------------|----------------------------|--|--|
| <b>City of San Marcos</b> |                    |                            |  |  |
| 1                         | Under Construction | Block 3 Student Housing    | NW corner of Campus Way and Barham Drive             | 342 bed student housing development, with a buildout year of 2022  |
| 2                         | Approved           | Carmel Street Apartments   | Southwest corner of Industrial St. and Carmel Street | 170-unit multifamily affordable housing development, with a buildout year of 2023  |
| 3                         | Under Construction | Kaiser Permanente Plan     | Craven Rd.   | 206 bed hospital, with a buildout year of 2023   |
| 4                         | Approved           | Discovery Village North    | Craven Rd.   | Office/Commercial/Residential on 41 acres  |
| 5                         | Proposed           | Main Square                | SE corner of San Marcos Blvd. and McMahr Rd.         | Mixed-use development with a 468-units apartment complex, and 44,007 sf of commercial space                                    |
| 6                         | Approved           | San Elijo Hills            | San Elijo Rd.  | 11,711 sf Commercial development with a buildout year of 2022  |
| 7                         | Approved           | Pacific Commercial         | NE corner of Grand Ave. and Pacific St.              | 122 room hotel, with a buildout year of 2022   |
| 8                         | Under Construction | San Marcos Highlands       | North end of N. Las Posas Rd.                        | 187-unit Single-Family Residential development, with a buildout year of 2023   |
| 9                         | Complete           | El Dorado II Specific Plan | Southwest corner of Richmar Ave. and Pleasant Way    | Mixed-use development consisting of a 72-unit apartment complex and 2,000 sf of specialty retail, with a buildout year of 2022 |
| 10                        | Under Construction | Villa Serena               | Richmar Ave. and Marcos St.                          | 12-unit apartment complex, with a buildout year of 2023  |
| 11                        | Approved           | Montiel Rd Partners        | Montiel Rd.  | 8-unit Single-Family Residential development, with a buildout year of 2022   |
| 12                        | Approved           | Meadowlark Canyon LLC      | San Marcos Blvd.                                     | 33-unit Single-Family Residential development  |
| 13                        | Approved           | Mariposa- Phase 1          | Richmar Ave. and Los Olivos Dr.                      | 66-unit apartment development, with a buildout year of 2022  |
| 14                        | Proposed           | Mariposa- Phase 2          | Richmar Ave. and Los Olivos Dr.                      | 66-unit apartment development  |
| 15                        | Under Construction | Murai-Sab                  | N. Las Posas Rd.                                     | 89-unit single-family residential with a buildout year of 2022   |

**Table 3.19-1. Cumulative Projects**

| No. | Status             | Project Name/<br>Developer   | Location  | Description   |
|-----|--------------------|------------------------------|---|---|
| 16  | Approved           | Pacifica San Marcos          | S. Rancho Santa Fe Rd and Creek St.               | Mixed-use development of 31-unit apartment complex and 4,375 sf commercial space with a buildout year of 2022 |
| 17  | Under Construction | Discovery Village South      | Future Discovery St.                              | 220-unit single-family residential, with a buildout year of 2022  |
| 18  | Approved           | Breaker Real Estate          | SE corner of Twin Oaks Valley Rd and Richmar Ave. | 174-bed assisted living facility  |
| 19  | Approved           | Hall Land Company            | Barham Drive, east of Woodland Pkwy.              | 151-unit multifamily condominium development  |
| 20  | Under Construction | Carkel SM-Starbucks          | SE corner of San Marcos Blvd. and Bent Ave.       | Drive-thru restaurant with a buildout year of 2023  |
| 21  | Approved           | Southlake Park Phase 1       | Twin Oaks Valley Rd, South of Village Dr.         | Parking lot, fishing dock   |
| 22  | Approved           | MacDonald Group              | San Marcos Blvd. (Former Sears site)              | Mixed-use development with 82-unit apartment complex and 5,000 sf of commercial space                         |
| 23  | Under Construction | Mission 316 West             | Mission Rd. at Woodward St. (east side)           | 67-dwelling unit multifamily condominium development with a buildout year of 2023                             |
| 24  | Proposed           | Lanikai                      | Mission Rd. at Woodward St. (west side)           | 115-unit senior living complex  |
| 25  | Approved           | Artis Senior Housing         | San Elijo Rd. at Paseo Plomo                      | 64-bed assisted living facility   |
| 26  | Under Construction | Sunrise                      | Barham Dr. (near east City limit)                 | 192-dwelling unit multifamily condominiums  |
| 27  | Under Construction | Jump Ball LLC                | W. San Marcos Blvd. at Bent Ave.                  | Drive-thru restaurant   |
| 28  | Proposed           | Montiel Commercial           | 2355/2357 Montiel Rd.                             | 32,971-sf office building   |
| 29  | Under Construction | California Allstars          | East side of Twin Oaks Valley Rd.                 | 28,137-sf industrial building to be completed in 2022   |
| 30  | Proposed           | Bodhi Hill Buddhist Center   | Poinsettia Ave. s/o Linda Vista Dr.               | Development of a 36,501-sf fellowship hall and 7,612-sf monk dormitory  |
| 31  | Proposed           | Mercy Hill and Marian Center | Borden Rd.  | 31,105-sf Christian center  |

**Table 3.19-1. Cumulative Projects**

| No. | Status             | Project Name/<br>Developer                        | Location  | Description   |
|-----|--------------------|---|---|---|
| 32  | Under Construction | Karl Strauss Brewery                              | Las Posas Rd. and Los Vallecitos Blvd.  | 10,528-sf tasting room, commercial kitchen, entertainment room within existing commercial building with a buildout year of 2023                       |
| 33  | Approved           | Kiddie Academy                                    | Twin Oaks Valley Rd., northeast of Windy Way  | 11,430-sf preschool   |
| 34  | Proposed           | Edenpark  | 1601 San Elijo Rd.  | Adaptive reuse of existing structures for recreation, sports, and related personal services, and related commercial uses with a buildout year of 2022 |
| 35  | Under Construction | San Marcos Creek Phase 1<br>CIP - various numbers | Via Vera Crux Bridge, Bent Ave. Bridge, Discovery<br>St. widening, Levee construction, Promenade, and Creek Channel Wetland Restoration | San Marcos Creek Phase 1 Infrastructure, Discovery St.(east/west segment), Bent Ave. to Discovery St. (north/south segment)                           |
| 36  | Funded             | CIP 88179   | Smilax Rd./South Santa Fe Ave. Intersection, intersection re-alignment  | Smilax Rd./South Santa Fe Ave. intersection, intersection re-alignment  |
| 37  | Under Construction | CIP 86002   | San Marcos Blvd. at Discovery St. intersection  | Intersection improvement 300 ft. west, and 920 ft. east of intersection   |
| 38  | Funded             | PARK CIP  | Rancho Tesoro Park Improvements – 2 acres of 41-acre park   | City Park – Phase 2 Multi-Use Field and Parking Lot Improvements  |
| 39  | Programmed         | ST006   | South side of San Marcos Blvd., 500 ft. east of Acacia Dr.  | San Marcos Blvd. Slope Stabilization Project  |
| 40  | Proposed           | Pacific Grand Ventures                            | 1.49-acre lot east of S. Pacific at Seminole St.  | 26,156-sf industrial building   |
| 41  | Proposed           | Twin Oaks Valley Winery                           | 1451 Mulberry Dr.   | 3,121-sf 2-story winery and tasting room on a 4.23-acre lot   |
| 42  | Proposed           | Gran Vista  | Generally located at NW corner of W. Mission Rd. and N. Las Posas Rd.   | 120-unit residential condominium development on 7.6 acres   |
| 43  | Proposed           | Paul Mayer-Santa Fe Las Floras LP                 | Northwest corner of S. Santa Fe Ave. and Las Flores Dr.   | 54-unit residential apartment building and 117 parking spaces on 2.23 acres   |

**Table 3.19-1. Cumulative Projects**

| No. | Status   | Project Name/<br>Developer                              | Location   | Description   |
|-----|----------|---|--|---|
| 44  | Proposed | Water Mill Homes, Inc. (Manning Homes)                  | SW corner of Mulberry Dr. and Cox Rd.  | 9 single-family residential lots on a 10-acre property  |
| 45  | Proposed | San Marcos Hospitality                                  | SW corner of Montiel Rd. and Leora Ln.   | Hotel with 107 rooms  |
| 46  | Proposed | Lonnie Tabbaa - Arco                                    | 200 Las Posas Rd.  | Gas station, convenience store, car wash.   |
| 47  | Proposed | Bennet Manning  | South of Woodward St. at Killarney Terrace   | 3 single-family residential lots.   |
| 48  | Proposed | SH North City, LLC                                      | Discovery St. west of S. Twin Oaks Valley Rd.  | 532 attached and 94 detached condo units (626 total units), master association community rec center, public and private trail systems that connect to future Knoll Park |
| 49  | Approved | University District Specific Plan Amendment - UVSM, LLC | Generally located between North City Dr., Carmel St, Campus Way, and S. Twin Oaks Valley Rd. | Mixed-use development with 557 residential units and associated commercial and office space   |
| 50  | Approved | Hollandia Dairy   | 620 E. Mission Rd.   | Partial demolition and reconstruction of dairy facilities; 48,755 sf  |
| 51  | Approved | American Rentals  | 1030 Linda Vista Dr.   | Equipment rental facility   |
| 52  | Proposed | Hunter Industries                                       | West terminus of Opal Dr.  | 67,657-sf office building   |
| 53  | Proposed | Hughes SMCC, LLC  | NE corner of Pacific St., approximately 750 ft. south of Linda Vista Dr.                     | 67,410-sf industrial building   |
| 54  | Proposed | Marcos Specific Plan                                    | SW corner of Grand Ave. and Linda Vista Dr.  | Horizontal mixed-use project with 102 residential units and 63,641 sf of commercial space and 8 live/work units   |
| 55  | Proposed | Polley Apartments                                       | North side of Polley Dr. at the eastern terminus   | 17-unit apartment building on a 0.60-acre undeveloped lot   |
| 56  | Proposed | Salim Mixed-Use Development                             | South side of San Marcos Blvd., approximately 300 ft west of Via Vera Cruz                   | Mixed-use development on a 4.8-acre lot consisting of 10,067-sf commercial, 250 dwelling units, and 8 live/work units   |

**Table 3.19-1. Cumulative Projects**

| No. | Status   | Project Name/<br>Developer      | Location   | Description   |
|-----|----------|---------------------------------|--|---|
| 57  | Proposed | Lennar Homes of California, LLC | 1020-1080 W. San Marcos Blvd.  | Redevelopment project removing existing building and constructing a mixed-use project of 10,500-sf commercial, 202 condominium units, and a public park |
| 58  | Approved | San Elijo Town Center East      | NE corner of San Elijo Rd. and Elfin Forrest Rd. at 1093 San Elijo Rd. | Construction of a two-story multi-tenant commercial building  |

**Notes:**

- CUP = Conditional Use Permit
- du = dwelling unit
- GPA = General Plan Amendment
- MFR = multifamily residence
- MUP = Major Use Permit
- REZ = Rezone
- S = Site Plan
- SCH = State Clearinghouse
- sf = square feet
- SP = Specific Plan
- SPA = Specific Plan Amendment
- SFR = single-family residence
- TM = Tentative Map
- TPM = Tentative Parcel Map
- VTM = Vesting Tentative Map

### 3.19.3 Cumulative Impact Analysis

#### Aesthetics

Projects contributing to a cumulative aesthetic impact include those within the project viewshed. The viewshed encompasses the geographic area within which the viewer is most likely to observe the proposed project and surrounding uses. Typically, this is delineated based on topography, as elevated vantage points, such as from scenic vistas, offer unobstructed views of expansive visible landscapes.

Cumulative aesthetic impacts would occur if projects combine to result in substantial adverse impacts to the visual quality of the environment and/or increase sources of substantial lighting and glare. The proposed project would have no substantial impact on a scenic vista or City-protected scenic resource, would not adversely impact the visual character of the area, and would not introduce a substantial new source of lighting or glare.

Although not technically designated scenic vistas, Mt. Whitney, Franks Peak, and the adjacent prominent ridgelines are scenic resources, which the City’s General Plan aims to protect and preserve for their natural visual quality. As previously discussed, the summit of Mt. Whitney is off limits to the public, but Franks Peak and its surrounding recreational trails are publicly accessible. From Franks Peak, viewers would be able to see cumulative development projects in the same viewshed, and potentially portions of the project site. The proposed residential development would not substantially contrast with the visual patterns of the area as height and density would be consistent with the existing surrounding development and appear as an extension of the already urbanized landscape. Therefore,

the proposed project would not substantially contribute to a cumulative change in visual character of the surrounding area.

As discussed, the closest Designated State Scenic Highway is State Route 78; however, the segment designated as a State Scenic Highway is located in Anza Borrego State Park, approximately 41 miles east of the project site. Therefore, the proposed project would not result in a cumulative impact to the Designated State Scenic Highway segment of State Route 78. Nor would the proposed project result in a cumulative impact to the eligible portion of Interstate-5, as the highway is located beyond intervening topography approximately 7.3 miles west of the project site.

As previously described, the project site is surrounded by existing developments that contain sources of lighting typical of residential, commercial, and industrial uses. The proposed project would introduce new sources of lighting to the project site as the proposed project would allow for the development of residential uses. The project site is currently undeveloped and contains no sources of light. The project and cumulative projects would have to comply with the City's Municipal Code, which would restrict light trespass into adjacent properties and ensure that new sources of lighting would not result in significant impacts. Concerning glare, implementation of the proposed project would not result in new sources of glare. The project developer, and the developers of any proposed cumulative projects would be required to minimize use of reflective building materials and finishes, as well as reflective lighting structures and metallic surfaces to the extent feasible to impede any potential glare effects to comply with the City's Municipal Code. Impacts pertaining to light and glare from the project and cumulative projects would be minimized through compliance with applicable regulations related to light and glare and design requirements. For the reasons outlined above, cumulative impacts related to aesthetics are determined to be less than significant.

## Air Quality

In analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the air basin is designated as nonattainment for the California Ambient Air Quality Standards and National Ambient Air Quality Standards. If a project does not exceed thresholds and is determined to have less-than-significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

See Threshold No. 2 in Section 3.2.4 of this EIR for a detailed discussion of the proposed project's cumulative air quality impacts. In analyzing cumulative impacts from the project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the basin is designated as nonattainment for the California Ambient Air Quality Standards and National Ambient Air Quality Standards.

Implementation of the project would exceed the significance threshold for volatile organic compounds, which is a precursor to the formation of ozone. Because the San Diego Air Basin is an ozone nonattainment area under the National Ambient Air Quality Standards and California Ambient Air Quality Standards, the potential for the proposed project to result in a cumulatively considerable net increase of a criteria pollutant (volatile organic compounds) for which the project region is nonattainment under an applicable national or California ambient air quality standard is potentially significant. Mitigation Measure **MM-AQ-1**, outlined in Section 3.2 of this EIR, would be implemented to reduce volatile organic compound emissions generated during construction of the proposed project.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Table 3.19-1 provides a list of reasonably foreseeable, approved, and pending projects within the City limits. As it is unknown whether the cumulative projects under review will be approved or not, and if approved when actual construction would begin, it would be speculative to estimate any potential overlap of the proposed project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be speculative. However, future projects would be subject to CEQA and would require an air quality analysis and, where necessary, mitigation if the project would exceed the San Diego Air Pollution Control District (SDAPCD) significance thresholds. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by SDAPCD. Cumulative PM<sub>10</sub> and PM<sub>2.5</sub> emissions would be reduced because all future projects would be subject to SDAPCD Rule 55 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SDAPCD.

As construction and operation of the project would be typical of multifamily development uses, implementation of the project is not expected to contribute to any cumulative health risks.

## Biological Resources

### Special-Status Plant and Animal Species

Cumulative impacts consider the potential regional effects of a project and how a project may affect an ecosystem or one of its members beyond the project limits and on a regional scale. As discussed, the project would have potentially significant impacts associated with San Diego button celery, thread-leaved brodiaea, Orcutt's brodiaea, San Diego fairy shrimp, and nesting birds; however, implementation of **MM-BIO-1** through **MM-BIO-8b** would reduce these impacts to a level below significance.

Similar to the proposed project, cumulative projects would be required to mitigate impacts by avoiding the grading or clearing of suitable habitat for sensitive wildlife during breeding season, or by conducting pre-construction surveys to avoid sensitive species if construction would occur during breeding season. However, through the implementation of required mitigation, impacts to present and potentially present sensitive wildlife species would be reduced to a level below significance for the proposed project and for cumulative projects. Therefore, cumulative impacts with regard to special-status wildlife species would not be cumulatively considerable.

### Sensitive Natural Communities

The project would directly contribute to the cumulative loss of 32.2 acres of upland vegetation communities in the region (see Table 3.3-5, Impacts to Sensitive Natural Communities). These vegetation communities are also suitable habitat for several special-status wildlife species. These impacts would be considered significant prior to mitigation. The project would be required to provide off-site compensatory mitigation lands through the purchase of credits in an approved mitigation or conservation bank, in-lieu fee program, or permittee responsible mitigation, as determined to be appropriate following consultation with the resource agencies. Mitigation ratios are presented in Table 4 of Appendix C to this EIR. Further, with the implementation of mitigation measures **MM-BIO-6**, **MM-BIO-8a**, and **MM-BIO-8b**, as identified below, the project would reduce cumulative impacts to a level below significance.

Cumulative projects would be required to mitigate their individual impacts to sensitive vegetation communities through either on-site preservation/restoration or off-site habitat acquisition, typically at a 2:1 ratio. Therefore,



because the proposed project and cumulative projects would be required to mitigate for habitat loss, impacts related to the loss of sensitive vegetation communities would not be cumulatively considerable.

### Jurisdictional Waters and Wetlands

Implementing the proposed project would result in significant impacts to protected jurisdictional resources under potential regulation by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and/or the California Department of Fish and Wildlife. The proposed project would be required to secure the necessary regulatory permits prior to impacts per mitigation measure MM-BIO-8a. It is anticipated that a 404 permit from the U.S. Army Corps of Engineers, 401 Certification from the Regional Water Quality Control Board, and a 1602 agreement from the California Department of Fish and Wildlife would be needed. If the wetlands or waters on-site are ruled non-jurisdictional by the U.S. Army Corps of Engineers, it is anticipated that a WDR Permit from Regional Water Quality Control Board and a 1602 agreement from the California Department of Fish and Wildlife would be required. Proposed mitigation measure MM-BIO-8b proposes ratios consistent with those typically required by these regulatory agencies and, therefore, would compensate for impacts to jurisdictional resources, such that impacts would be reduced to below a level of significance.

Like the proposed project, it is presumed that all reasonably foreseeable cumulative projects would be required to conform to existing regulations with respect to avoidance, minimization, and mitigation of impacts to sensitive habitat, achieving no-net-loss of wetlands and like/kind replacement for impacts to sensitive habitat that cannot be avoided. The regulatory permitting process ensures that every project with unavoidable impacts on jurisdictional resources implements required avoidance, minimization, and compensatory mitigation measures and obtains the appropriate permits. Projects in the region are required to meet a no-net-loss standard for both function and spatial area of wetland and non-wetland resources. Therefore, the project would not contribute to a cumulative impact to jurisdictional waters and wetlands.

### Conflict with Local Ordinances/Tree Preservation Policies

Like the proposed project, it is presumed that all reasonably foreseeable cumulative projects would be required to conform to the City's Municipal Code requirements and General Plan Policies for tree replacement. Therefore, the project would not contribute to a cumulative impact related to a conflict with tree preservation policies.

### Conflict with Adopted Habitat Management Plan

The project site is recognized as being located within a "Major Amendment Area" within the boundaries of the Multiple Habitat Conservation Program (MHCP) and Draft San Marcos Subarea Plan, which plans for regional biological resource protection and conservation. The project would be required to comply to minimum standards and mitigation ratios required by the MHCP, as set forth in MM-BIO-1 through MM-BIO-8b. Compliance with MM-BIO-1 through MM-BIO-8b in this report would ensure that the project would not conflict with requirements or policies of the MHCP and draft San Marcos Subarea Plan. Cumulative projects would also be required to comply with relevant MHCP and Natural Community Conservation Plan policies; therefore, cumulative impacts would be less than significant.

In sum, all reasonably foreseeable cumulative projects would be required to conform to existing regulations with respect to avoidance, minimization, and mitigation of impacts to sensitive habitat, achieving no-net-loss of wetlands and like/kind replacement for impacts to sensitive habitat that cannot be avoided. Impacts would be assessed on a regional basis and mitigated pursuant to CEQA, and those projects within the City's jurisdiction would be reviewed

by the City during the project review and approval process. For these reasons, project impacts to biological resources are not cumulatively considerable.

## Cultural Resources

According to CEQA, the importance of cultural resources comes from the research value and the information they contain, as well as the loss of recognized cultural landmarks and vestiges of our community cultural history. The cumulative study area includes the project area of potential effect and cumulative project sites.

As identified in Section 3.4.4, no historic resources exist at the project site. Thus, no impact to historic resources would occur with implementation of the proposed project. It is expected that cultural resources studies would be prepared for all cumulative projects to assess potential impacts, and that these projects would avoid or mitigate impacts to historic resources, as required by local jurisdictions and state law.

As identified in Section 3.4.4, no cultural resources were found at the project site during the field survey. However, the potential to unearth a cultural resource during project construction would be potentially significant (**Impact-CR-1**). Mitigation measures **MM-TCR-1** through **MM-TCR-4** would be implemented to reduce impacts to less than significant levels. It is expected that cultural resources studies would be prepared for all other cumulative projects to assess potential impacts, and that these projects would similarly avoid or mitigate impacts to cultural resources, as required by local jurisdictions and state law.

Similar to the project, the presence of human remains on cumulative project sites would typically remain unknown for cumulative projects until earthwork activities commence for project construction. As identified in Section 3.4.4, the cultural resources field survey conducted for the project did not identify any human remains or find any indications that they would be expected to be found on the project site. If human remains are encountered during project construction, there is a potential for a significant impact (**Impact CR-2**). However, mitigation measures **MM-TCR-1** through **MM-TCR-4** would ensure any impacts to human remains would be less than significant. It is expected that all cumulative projects would similarly assess potential impacts to human remains, and that these cumulative projects would avoid or mitigate these impacts, as required by local jurisdictions and state law.

Because the project and those projects identified within the cumulative study area would be required to mitigate cultural impacts through the collection and curation of information, construction monitoring, and the preservation of the most important resources, cumulative cultural impacts would be *less than significant*.

## Energy

Potential cumulative impacts on energy would result if the proposed project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy within the San Diego region. This could result from development that would not incorporate sufficient building energy efficiency features, would not achieve building energy efficiency standards, or would result in the unnecessary use of energy during construction and/or operation. The cumulative projects within the areas serviced by the energy service providers would be applicable to this analysis; this includes existing aging structures that are energy inefficient. Projects that include development of large buildings or other structures that would have the potential to consume energy in an inefficient manner would have the potential to contribute to a cumulative impact. Projects that would mostly include construction, such as transportation infrastructure, could also contribute to a cumulative impact; however, the impact of these projects would be limited because they would typically not involve substantial ongoing energy use.

As described previously, the proposed project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary use of energy due to various design features, including installing electric vehicle charging stations, installing electric or solar water heaters, implementing a Transportation Demand Management plan, reducing landscaping water use, and planting trees that would be required of the proposed project. Like the project, cumulative projects would be subject to California Green Building Standards Code (CALGreen), which provides energy efficiency standards for commercial and residential buildings. Over time, CALGreen would implement increasingly stringent energy efficiency standards that would require the project, and the cumulative projects, to minimize the wasteful and inefficient use of energy. In addition, cumulative projects would be required—at a minimum—to meet Title 24 building standards, further avoiding the inefficient use of energy; and would be required to demonstrate consistency with the City’s Climate Action Plan Checklist and implement measures to reduce potential energy demands and greenhouse gas (GHG) emissions. Furthermore, various federal and state regulations, including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program, would serve to reduce the transportation fuel demand of cumulative projects.

In summary, the proposed project contains energy-efficiency design features, would comply with applicable regulatory standards for the enhancement of energy efficiency, and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Thus, the proposed project would not contribute to a cumulative impact to the wasteful or inefficient use of energy and would not result in a cumulatively considerable contribution to a potential cumulative impact. Cumulative impacts related to energy would be less than significant.

## Geology and Soils

Due to the localized nature of geology and soils, cumulative projects would address potential impacts to geology and soils on a project-by-project basis, as potential geologic hazards and soil composition vary by site. Each cumulative project would be required to assess individual and site-specific geologic conditions, which would inform construction and development of each site. All cumulative development would be subject to similar requirements to those imposed and implemented for the proposed project and would be required to adhere to applicable regulations, standards, and procedures.

Further, as discussed in Section 3.6.4, although ground-disturbing activities associated with the proposed project have the potential to unearth previously unidentified paleontological resources, the preliminary geotechnical evaluation prepared for the proposed project did not identify any unique geologic features on the project site. Due to the existing conditions of the site, and the project location surrounded by urban uses, paleontological resources are not anticipated to be unearthed within the project’s area of potential effect. However, the project site is underlain by the Santiago Formation, which has high paleontological sensitivity, and a paleontological records search is recommended prior to project construction to ensure impacts remain less than significant. While some of the projects on the cumulative list are located in areas that may contain paleontological resources, the presence of these resources is typically unknown prior to construction, and it is expected that mitigation measures would be included with approval of cumulative projects to ensure that impacts to paleontological resources are minimized.

As implementation of the proposed project would not result in any significant impacts to geology and soils on the project site, and all cumulative projects would be required to analyze site-specific conditions and implement recommendations or mitigation, cumulative impacts related to geology and soils would be less than significant.

## Greenhouse Gas Emissions

Due to the global nature of the assessment of GHG emissions and the effects of global climate change, GHG emissions analysis, by its nature, is a cumulative impact analysis. Therefore, the information and analysis provided in Section 3.7.4 of this EIR, to determine project-level impacts applies here, and the project's contribution to global climate change would not be cumulatively considerable.

This approach is consistent with the supporting documentation published by the California Natural Resources Agency (CNRA) when promulgating the Senate Bill 97-related CEQA amendments, which indicated that the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). The Resources Agency similarly advised that an environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b). The adopted CEQA Guideline (14 CCR 15064.4) confirms that the analysis of climate change impacts is cumulative and, in the most recent update to the Guidelines, text was added to Section 15064.4 to clarify as much (CNRA 2018). Section 15064.4 now states: "In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change."

The project would not contribute to a significant cumulative impact by generating GHG emissions, either directly or indirectly, that may have a significant impact on the environment or by conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Cumulative impacts related to greenhouse gas emissions would be less than significant.

## Hazards and Hazardous Materials

Hazardous materials impacts are generally site specific and thus handled on a site-by-site basis. Identified cumulative projects are located more than a quarter mile from the project site and thus would be unlikely to result in cumulative impacts to hazardous and hazardous materials together with the proposed project. In addition, any cumulative project would be required to identify existing hazardous materials on site and comply with existing regulations related to use, transport, and disposal of hazardous materials. Similarly, all cumulative projects would be required to analyze and properly mitigate any impacts to the existing evacuation plan if impacts are identified.

With regard to wildfire hazards, any of the cumulative projects proposed within the wildland urban interface would be required to meet minimum fire fuel modification and/or clearing requirements in addition to meeting standards of the various fire codes in effect at the time of building permit issuance. For projects within the City, these requirements are implemented through preparation of and compliance with a Fire Protection Plan, which is reviewed and approved by the Fire Marshal.

Therefore, the proposed project's and cumulative projects' compliance with applicable regulations related to hazards and wildfire would ensure impacts related to hazards and hazardous materials would be less than significant.

## Hydrology and Water Quality

The proposed project and cumulative projects would result in an increase of impervious surfaces in the area. More specifically, other large development projects nearby would result in conversion of large pervious areas to impervious areas. This would potentially result in increased surface runoff, alteration of the regional drainage pattern, and flooding. However, like the proposed project, each individual project applicant would be required to

hydrologically engineer the respective cumulative project sites to ensure that post-development surface runoff flows can be accommodated by the regional drainage system.

The proposed project, in conjunction with cumulative projects that drain to the San Marcos Hydrologic Area, have the potential to increase the concentration of pollutants in surface runoff and downstream water quality. However, all cumulatively considered projects would be subject to the same federal water quality standards and state waste discharge requirements as the proposed project. This includes preparation of project-specific stormwater pollution prevention plans per the National Pollutant Discharge Elimination System permit program and implementation of associated best management practices to prevent construction-related runoff from polluting receiving waters.

The proposed project would incorporate bio-retention areas and best management practices into the project site design to limit the potential for water quality impacts to the greatest extent feasible. By incorporating these features into the project design, the proposed project would not substantially contribute to a significant cumulative impact to water quality. Impacts would be *less than significant*.

### Land Use and Planning

As described in Section 3.10 of this EIR, while the project seeks approval of a GPA and Rezone of the project site, the proposed project would be consistent with the overarching goals of the City's General Plan. In addition to the City's General Plan, the proposed project would also be consistent with the City's Municipal Code, San Diego Association of Governments 2050 Regional Transportation Plan/Sustainable Communities Strategy, and applicable plans and polices described in the regulatory setting sections throughout Chapter 3. Furthermore, as analyzed throughout Chapter 3, implementation of the proposed project would not result in any significant unavoidable impacts that could further impact land use.

All cumulative projects would be subject to similar criteria as the proposed project, which would ensure compliance with existing applicable land use plans with jurisdiction over the project area. Any cumulative projects that propose amendments to the General Plan or Zoning Ordinance would be required to show that proposed uses would not result in significant environmental impacts due to a conflict with applicable policies in a similar way as the proposed project. Since all current and future projects would be analyzed for compatibility and compliance with land use regulations prior to approval, cumulative impacts related to land use and planning are determined to be *less than significant*.

### Noise

Noise levels tend to diminish quickly with distance from a source. Therefore, the geographic scope of the analysis of cumulative impacts related to noise is limited to locations immediately surrounding and in close proximity to the project site. As described in Section 3.11 of this EIR, project implementation would result in *less than significant* noise impacts. No mitigation is required with proper implementation of the recommended design features.

Cumulative traffic noise impact could occur in combination with the project and cumulative projects during construction if traffic noise exceeded City standards. However, it is likely that any construction traffic, included as related to export/import haul trucks associated with cumulative projects, would be distributed among different roadways based on the locations of cumulative projects. Similar to the proposed project, cumulative projects would include construction and operation noise reduction measures to reduce any potentially significant noise impacts to a level below significance, where feasible. Development plans for cumulative projects would be required to outline mitigation measures, design features, and required regulatory compliance. Implementation of project-specific mitigation and design features would ensure cumulative noise impacts would remain at a *less than significant* level.

## Population and Housing

Cumulative projects in addition to the proposed project could result in both direct and indirect cumulative impacts to population and housing in the City. Projects that include residential development could result in direct impacts to population growth in the City, and non-residential projects located on undeveloped land could result in indirect growth due to the need for new roads and/or utilities, or expansion of existing infrastructure.

Cumulative projects outlined in Chapter 2 of this EIR include both residential and mixed-use development projects. The introduction of a new population is not, in and of itself, a significant impact. As with a project-level analysis, the significance of a cumulative population impact is determined by whether the population growth resulting from the combined cumulative projects would be considered to induce substantial unplanned population growth in the area. Similar to the City, the neighboring jurisdictions manage population growth and housing stock to meet their Regional Housing Need Allocation requirements. All cumulative projects would be required to prepare an environmental document addressing potential impacts to population and housing, and would be required to comply with the City's General Plan Housing Element, City Ordinances related to housing, and would be subject to applicable development fees. Compliance with City regulations and fees would ensure that cumulative impacts related to population and housing are adequately addressed.

Further, the proposed project and cumulative projects would not result in the removal of a barrier of growth that would reasonably result in the intensification or development of land, or any cumulative utility or infrastructure expansion. Additionally, because the proposed project is surrounded by existing development, approval of the proposed project and other projects would not lead to an intensification of the land uses in the area. Therefore, cumulative impacts are determined to be less than significant.

## Public Services

### Fire Protection Services

The geographic area for the cumulative analysis of fire protection and emergency services consists of those areas that are serviced by the San Marcos Fire Protection District. The cumulative projects that fall within this geographic area would add to the increase in demand for fire protection and emergency services. The San Marcos Fire Protection District provides service to the City of San Marcos and has existing automatic mutual aid fire agreements in place with the cities of Carlsbad, Vista, Escondido, Encinitas, and the Rancho Santa Fe Fire Protection District.

As discussed in Section 3.13 of this EIR, the project would increase the demand on San Marcos Fire Department (SMFD) resources in comparison to development of an industrial use under the current allowed land use because of the substantial increase of residents in the area. The proposed project in addition to cumulative projects could increase the need for fire protection services through routine fire and emergency medical calls, and would increase the demand on SMFD Stations, specifically Station 2, which would serve the project site. SMFD Station 1 and Vista Fire Department (VFD) Station 4 would respond as necessary.

The project and its estimated population of approximately 1,388 people is an increase in potential service demand of approximately 184 calls per year (0.5 calls per day), which is within the capacity of the existing fire stations that will service the proposed project. When considered cumulatively, the potential impact of multiple projects is considered less than significant, mitigated by increased funding available from each project to the SMFD through property taxes and other fees associated with each project, including the proposed project. This funding would be utilized to maintain or enhance fire response capabilities.

Similar to the project, cumulative projects would be required to comply with SMFD and California Fire Code requirements. Additionally, the developer/applicant of cumulative projects would be required to comply with the City's Development Services Fees outlined in Section 17.44.030 of the City's Municipal Code. Payment of the Development Services Fees fund City services, which include the Fire Protection District.

Furthermore, the Fire Protection Plan prepared for the project (Appendix N to this EIR) determined that SMFD could provide emergency response to the project site within its internal 7-minute response time, and development at the project site would not trigger the need for a new fire station closer to the project site. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities. Cumulative projects are anticipated to prepare similar analyses and provide mitigation if the response time cannot be met. Therefore, it is determined that cumulative impacts to fire protection as a result of the proposed project would be less than significant.

#### Police Protection Services

The geographic area for the cumulative analysis of police protection is those areas that are serviced by the San Marcos Sheriff's Department. All cumulative projects would result in an increase in demand for police protection services from the San Marcos Sheriff's Department. The proposed project site would be served by the San Marcos Station, located approximately 4 miles from the proposed project site. As discussed in Section 3.13.4, Project Impact Analysis, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities. Therefore, cumulative impacts to police protection services would be less than significant.

For informational purposes, cumulative projects could result in additional demand of police protection services and the potential need for additional police protection resources. Similar to the proposed project, all cumulative projects would be required to offset increased demand to police protection services through the payment of Development Services Fees, which go towards City services, which include the Sheriff's Department. These fees would provide for additional staff and equipment to assist in the provision of law enforcement services.

#### Schools

Cumulative projects that have a residential component would generate students that need to be accommodated by either San Marcos Unified School District or another school district in the area. As discussed in Section 3.13.4, Project Impact Analysis, the project would be required to contribute development fees to San Marcos Unified School District, pursuant to California Education Code Section 17620 et seq. and Government Code Sections 65995(h) and 65996(b) as well as the City's Municipal Code Section 17.52.050. Furthermore, will-serve letters from the San Marcos Unified School District or servicing schools would be required to confirm such schools have adequate capacity to serve grade-school students generated by residential development. This would apply to similar cumulative projects as well. Senate Bill 50 states that the fees imposed by school districts shall constitute the exclusive method of considering and mitigating impacts on school facilities caused by a development project. As such, with contribution of required development fees by the project and cumulative projects, cumulative impacts to schools would be less than significant.

#### Parks

The proposed project and the cumulative projects in the City of San Marcos would add to the cumulative demand for park and recreation facilities in the City. All residential projects that increase the demand for park and recreation needs in the City are required to provide park space and/or pay park in lieu-fees. The environmental documentation prepared for each project would analyze impacts associated with the construction of any parks within each overall development footprint. As discussed in Section 3.13.4, Project Impact Analysis, the project developer/applicant would be required to

pay the City's Public Facility Fee, required for all projects that increase the demand for park and recreation needs in the City, and which is used for developing neighborhood and regional parks. It is expected that all cumulative projects that increase demand for parks and recreation needs would also be required to pay these fees. It is also anticipated that similar to the proposed project, all cumulative residential projects would provide on-site open space and/or recreational amenities consistent with the requirements of the City's Municipal Code (Section 20.215.050). With payment into the City's Public Facility Fee and incorporation of on-site recreation, cumulative impacts on recreational facilities in the City would be less than significant.

### Libraries

Cumulative projects within the services area of the San Marcos Branch Library would potentially result in an increase in demand for library services. Aside from the San Marcos Branch, additional library services are available in the County through the Serra Library System. In addition, community members can get borrowing privileges at the California State University, San Marcos, campus and the Palomar Community College. These additional library resources provide over 200,000 square feet of additional library space. Therefore, due to the City's availability of library resources, it is determined that cumulative impacts to library facilities in the City as a result of the project would be less than significant.

### Recreation

The proposed project, in addition to cumulative projects, would increase the demand for park and recreation facilities in the City. Similar to the project, all cumulative projects that increase the demand for park and recreation needs would be required to provide park space and/or pay the City's Public Facility Fee. Furthermore, any substantial expansion or development of new recreational facilities would be subject to the appropriate CEQA environmental review, which would identify and address any site-specific impacts. Therefore, with payment of the City's Public Facility Fee and project-specific environmental review, cumulative impacts to recreational facilities would be less than significant.

### Transportation

The project in addition to cumulative projects in the study area could result in cumulative impacts related to transportation and circulation. However, the preceding analysis of the proposed project in Section 3.15.4, as well as the Vehicle Miles Traveled Analysis prepared for the proposed project (Appendix J) are based on methodologies that incorporate the cumulative impacts of traffic from forecasted growth within the project area. Additionally, it is expected that a Traffic Impact Analysis would be prepared for cumulative projects consistent with City Guidelines, to fully analyze project-specific impacts on-site and in the study area, and provide mitigation measures, design features, or improvements recommendations to address any potentially significant impacts. Furthermore, all cumulative projects would be required to comply with applicable City regulations related to transportation and circulation, as the project does. As analyzed in Section 3.15.4, implementation of the proposed project would not result in any significant impacts to transportation and circulation in the study area. Therefore, it is determined that cumulative impacts to transportation as a result of project implementation would be less than significant.

### Tribal Cultural Resources

Each cumulative project subject to Assembly Bill 52 would require tribal consultation on a case-by-case basis to identify any potential tribal cultural resources (TCRs) affected by each cumulative project. It is anticipated that each cumulative project would require mitigation similar to that required of the project to reduce potentially significant



impacts to TCRs to a level below significance. With implementation of mitigation measures MM-TCR-1 through MM-TCR-4 and compliance with applicable regulations related to TCRs, the project's contribution to a cumulative impact would be reduced to less than significant.

## Utilities and Service Systems

### Water

Some of the cumulative projects are within Vallecitos Water District (VWD) service area for potable water service and would contribute to the cumulative demand for water supply. However, Metropolitan Water District of Southern California (MWD) anticipates the demand of future development through their master planning process. According to MWD's Urban Water Management Plan, no water shortages are anticipated within MWD's service area in single or multiple dry years through 2040. Not all cumulative projects fall into the VWD's service area; those that do not would be served by neighboring districts and would be evaluated as such.

As described in Section 3.17 of this EIR, the proposed project would result in less than significant impacts to water supply services. As discussed in Section 3.17.1, MWD has determined that with supplies provided by San Diego County Water Authority, and compliance with the Water Conservation Bill of 2009, no water shortages would occur in a normal year through 2040 (MWD 2016). Other cumulative projects that are consistent with the land use assumptions made in MWD's Urban Water Management Plan would have already been accounted for in demand projections. Projects that are inconsistent with the land use assumptions made in MWD's Urban Water Management Plan would also be subject to CEQA and required to include water supply assessments as applicable to demonstrate adequate supply for development. Further, related projects would be required to show that adequate infrastructure exists to serve the related projects and mitigate any potential impacts to water infrastructure caused by the project. All projects would be required to pay applicable Capital Facility Fees to the San Diego County Water Authority and VWD, required to go towards infrastructure improvements. Thus, the project's contribution to cumulative impacts relative to water services would be less than significant.

### Wastewater

Some of the cumulative projects are within VWD's service area for wastewater service and would contribute to the cumulative demand for wastewater treatment. VWD anticipates the demand for future development through their master planning process. Cumulative projects that are consistent with the land use assumptions made in VWD's Master Plan would have already had their demand accounted for. Lastly, not all cumulative projects fall into the VWD's service area; those that do not would be served by neighboring districts.

As discussed in Section 3.17 of this EIR, VWD has sufficient capacity to account for the proposed project's estimated wastewater generation rate. Thus, with payment of all applicable Wastewater Capital Facility fees to VWD, impacts to wastewater treatment facilities would be less than significant. Cumulative projects that result in an increase in density or development over what was accounted for in VWD's Master Plan would further exacerbate wastewater deficiencies. However, these projects would also be subject to CEQA and required to mitigate any potential impacts to wastewater services caused by the project. As such, the project's contribution to cumulative impacts relative to wastewater facilities would be less than significant.

### Solid Waste

Cumulative development projects would generate solid waste to be disposed of at the Sycamore Sanitary Landfill. According to CalRecycle, the facility has a daily permitted capacity of 5,000 tons per day for solid waste. As of

December 2016, the remaining capacity of Sycamore Sanitary Landfill is 147,908,000 cubic yards, or approximately 40 million tons, with an anticipated closure date of 2042 (CalRecycle 2019). Further, five other landfills in the County accept municipal solid waste (County of San Diego 2005). This includes Borrego Landfill, with a remaining capacity of 111,504 cubic yards since March 2016; Otay Landfill, with a remaining capacity of 21.1 million cubic yards since June 2017; and Ramona Landfill, which is currently at capacity (CalRecycle 2019). Therefore, it is determined there is adequate capacity throughout the County to serve future development projects, including those identified on the cumulative project list. The project's contribution to cumulative impacts related to solid waste would be less than significant.

### Electrical Power

Potential cumulative impacts on energy would result if the proposed project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. This could result from development that would not incorporate sufficient building energy efficiency features, would not achieve building energy efficiency standards, or would result in the unnecessary use of energy during construction and/or operation. The cumulative projects within the areas serviced by the energy service providers would be applicable to this analysis; this includes existing aging structures that are energy inefficient. Projects that include development of large buildings or other structures that would have the potential to consume energy in an inefficient manner would have the potential to contribute to a cumulative impact. Projects that would mostly include construction, such as transportation infrastructure, could also contribute to a cumulative impact; however, the impact of these projects would be limited because they would typically not involve substantial ongoing energy use.

As described previously, the proposed project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary use of energy due to various design features, including installing electric vehicle charging stations, installing electric or solar water heaters, implementing a Transportation Demand Management plan, reducing landscaping water use, and planting trees that would be required of the proposed project. Like the project, cumulative projects would be subject to CALGreen, which provides energy efficiency standards for commercial and residential buildings. Over time, CALGreen would implement increasingly stringent energy efficiency standards that would require the project, and the cumulative projects, to minimize the wasteful and inefficient use of energy. In addition, cumulative projects would be required to meet or exceed the Title 24 building standards, further reducing the inefficient use of energy. The project would also be required to meet even more stringent requirements, including the objectives set in the Assembly Bill 32 Scoping Plan (CARB 2017), which would seek to make all newly constructed single-family residential homes zero net energy consumers by 2020, and all new commercial buildings zero net energy consumers by 2030.

Cumulative projects are also required to comply with the state's energy efficiency standards and local regulations. Cumulative projects are therefore unlikely to result in significant effects related to requiring or resulting in the relocation or construction of new or expanded electric power facilities. As such, the project's contribution to cumulative impacts related to electrical power would be less than significant.

### Telecommunications

Cumulative development projects would increase the demand on telecommunication services. Communications systems for telephones, computers, and cable television are serviced by utility providers such as AT&T, Cox, Spectrum (formerly Time Warner), and other independent cable companies. The City's fiber-optic network is facilitated by a 72-strand fiber-optic line that runs on various streets throughout the City. All major arterials in the City have implemented fiber optics. No specific systems upgrades are proposed or anticipated for the proposed project. Telecommunication demand and service is site and land use specific. All cumulative projects would be

subject to CEQA and would require an analysis of impacts to utility services including telecommunication service. Due to the existing infrastructure served in the surrounding project area, the proposed project would not result in cumulative impacts associated with the construction or expansion of telecommunications. As such, the project's contribution to cumulative impacts related to telecommunications would be less than significant.

### Wildfire

Cumulative impacts from multiple projects can cause fire response service decline and must be analyzed for each project. The proposed project and its estimated population of 1,388 people is an increase in potential service demand of approximately 167 calls per year (0.5 calls per day), which is within the capacity of the existing fire stations that will service the project. There are seven<sup>1</sup> other future projects in the vicinity of SMFD Station 2 and when considered cumulatively would be mitigated by increased funding available from each project to the SMFD through property taxes and other fees associated with each project, including the proposed project. Therefore, the potential impact of multiple projects is considered less than significant, as this funding would be utilized to maintain or enhance fire response capabilities. The project's contribution to cumulative impacts related to wildfire risk would be less than significant.

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<sup>1</sup> Per Pacific Specific Plan EIR Figure 2-7, Cumulative Projects Map, there are seven cumulative projects within the vicinity of SMFD Station 2. These projects are listed in Table 2-3, Cumulative Projects, of the EIR, which include projects 5, 7, 19, 26, 36, 43, and 45.

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# 4 Alternatives

## 4.1 Introduction to Alternatives

Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines states that the Environmental Impact Report (EIR) shall “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.” The comparative merits of the alternatives evaluated, including the No Project Alternative, shall also be discussed.

The range of alternatives evaluated in an EIR is governed by the “rule of reason,” which requires the EIR set forth alternatives adequate to permit a reasoned choice by decision makers and limited to alternatives that “would avoid or substantially lessen any of the significant effects of the project.” An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative (Section 15126.6[a] of the CEQA Guidelines).

Other than the No Project Alternative, the EIR needs to examine only those alternatives that could feasibly obtain most of the basic objectives of the proposed project even if the alternative would impede to some degree the attainment of project objectives.

Factors that may influence feasibility of an alternative also include “site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent)” (CEQA Guidelines, Section 15126.6[f][1]). The ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency’s decision-making body, the San Marcos City Council (PRC Section 21081[a][3]).

This section presents several alternatives to the proposed Pacific Specific Plan Project (proposed project) that were considered pursuant to CEQA and evaluated for their ability to meet the basic objectives of the project, while reducing or avoiding the environmental impacts of the project identified in Chapter 3, Environmental Analysis, of the EIR. Those alternatives include (1) No Project Alternative (Section 4.4.3), (2) Existing Land Use Designation Alternative (Section 4.4.4), and (3) Reduced Development Footprint Alternative (Section 4.4.5). Other alternatives were considered but rejected, as summarized in Section 4.3.

## 4.2 Project Objectives

The objectives of the proposed project are described as follows:

1. Promote infill development and develop housing on a site that is served by existing utilities, services, and street access, within close proximity to public transportation and shopping centers.
2. Assist the City in implementing its housing goals by changing a non-residentially zoned site to a site where medium to high-density housing is allowed.
3. Provide a variety of housing types, including affordable housing, to align with the City’s Regional Housing Needs Allocation requirements.

4. Restore, manage, and conserve sensitive on-site biological resources, to the extent feasible, while accommodating residential uses.
5. Design buildings, spaces, site layout, and uses that enhance and respect the character of the surrounding area in a manner typical to residential developments and planning principles and to enhance connectivity.
6. To the extent possible given site constraints, maximize the opportunity to provide medium-density housing for the City of San Marcos up to 15.0 dwelling units per acre, which is comparable to other medium-density housing developments in the City of San Marcos.

## 4.3 Alternatives Considered But Rejected

The State CEQA Guidelines Section states that an EIR should identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process, and the EIR should briefly explain the reasons underlying the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts. Factors that may be taken into account when evaluating an alternative's feasibility include, among other things, site suitability, economic viability, availability of infrastructure, general plan consistency, consistency with other plans, regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). The following describes alternative concepts that were considered as alternative to the proposed project by the City but were rejected from further evaluation in this EIR, and a brief description of the reasons for their rejection.

### 4.3.1 Alternative Location

Pursuant to Section 15126.6(f)(2) of the CEQA Guidelines, the City considered the potential for alternative locations to develop the proposed project. There are sites within the City that are already zoned for residential use under the General Plan that could be developed or redeveloped with a residential project. However, the project applicant does not control another site within the City of comparable land area that is surrounded by existing infrastructure and near existing transit. One of the factors for feasibility of an alternative is "whether the proponent can reasonably acquire, control or otherwise have access to the alternative site." Because the City is highly urbanized and is largely built out, obtaining another site of a similar size in a similar location is not considered feasible. It should also be noted that the project site is surrounded on all sides by development and considered an infill site in an urban area. As such, an alternative location was ultimately rejected from further analysis in the EIR.

### 4.3.2 Mitigation Bank Alternative

Under the Mitigation Bank Alternative suggested for consideration by the Wildlife Agencies, the entire project site would be conserved as-is. Conservation of the site would occur through purchase with grants or mitigation funds from other projects or through the establishment of a mitigation bank. A conservation or mitigation bank is privately, or publicly owned land managed for its natural resource values. In exchange for permanently protecting, managing, and monitoring the land, the bank sponsor is allowed to sell or transfer habitat credits to permittees who need to satisfy legal requirements and compensate for the environmental impacts of development projects. Under this alternative, no development would occur on site.

The Mitigation Bank Alternative would not provide any development, and therefore overall impacts would be reduced compared to the proposed project. To the extent this alternative proposes no development, refer to Section 4.4.3, No Project Alternative, for an analysis of a no development alternative at the project site. This alternative would not meet any of the basic project objectives, and it would not provide housing units in an infill area or enhance uses and connectivity in the surrounding area.

## 4.4 Project Alternatives Considered in this Environmental Impact Report

### 4.4.1 Description of Alternatives

The following alternatives are under consideration for this project:

- No Project Alternative (Section 4.4.3)
- Existing Land Use Designation Alternative (Section 4.4.4)
- Reduced Development Footprint Alternative (Section 4.4.5)

Alternatives considered and removed from further consideration are summarized in Section 4.3.

### 4.4.2 Summary of Significant Project Impacts

Project- and cumulative-level impacts associated with implementation of the proposed project are evaluated in Sections 3.1, Aesthetics, through 3.19, Cumulative Effects, of this Draft EIR. As identified in Table 1-1, in Chapter 1 (Executive Summary), construction and/or operation of the proposed project would have the potential to cause the following significant environmental impacts, each of which would be mitigated to less than significant levels with the proposed project:

- **Impact AQ-1:** Construction of the project would exceed the significance threshold for VOC emissions
- **Impact BIO-1:** Construction of the project would result in potential impacts to special-status species
- **Impact BIO-2:** Construction of the project would result in potential impacts to riparian habitat and sensitive natural communities
- **Impact BIO-3:** Construction of the project would result in potential impacts to jurisdictional wetlands and waterways
- **Impact CR-1:** Unknown archaeological resources may occur on the project site, and the proposed project has the potential to disturb such unidentified resources during project grading
- **Impact CR-2:** There is a potential for project construction activities to disturb previously unidentified human remains on the project site
- **Impact TCR-1:** There is potential for project construction to adversely affect previously unidentified tribal cultural resources (TCRs)

### 4.4.3 No Project Alternative

Under the No Project Alternative, the proposed project would not be implemented, and the project site would remain undeveloped in its existing condition. This alternative would eliminate all the significant impacts identified for the proposed project. Habitat on the project site would not be impacted under this alternative but would not be preserved or managed.

#### Comparison of the Effects of the No Project Alternative to the Proposed Project

##### Aesthetics

Under the No Project Alternative, the site would remain in its current condition and the visual character of the site would not change. Existing vegetation would remain on site, and no grading or landform modification would occur under this alternative. This alternative would result in no impacts related to scenic vistas, scenic highways, visual character or quality, or lighting and glare compared to the proposed project, which would have less than significant impacts. No new sources of light, glare, or shading would be introduced. However, as discussed in Sections 3.1 and 3.19 of this EIR, the proposed project would similarly not result in significant impacts to aesthetics and no mitigation would be required. Further, leaving the site condition unchanged in an infill area would be inconsistent with, and not enhance, the character of the surrounding area. However, when compared to the proposed project, this alternative would reduce impacts, as no new development or construction would occur.

##### Air Quality

Under the No Project Alternative, air pollutant emissions associated with construction, including emissions associated with grading, site preparation, site finishing and building finishing, would not occur. This alternative would therefore avoid significant but mitigable emissions related to construction volatile organic compound (VOC) emissions (Impact AQ-1), because no construction air pollutant emissions would occur. Implementation of this alternative would not introduce any uses that would generate operational air pollutant emissions. Thus, compared to the proposed project, the No Project Alternative would reduce air quality impacts related to VOC emissions generated during construction, because no development would occur, and no mitigation would be required.

##### Biological Resources

The No Project Alternative would not require any ground-disturbing activities. As such, this alternative would not result in the direct loss of 33.2 acres of upland vegetation communities and would not result in potential impacts to special-status species, riparian habitat, sensitive natural communities, jurisdictional wetlands, or waterways. However, impacts to biological resources on site could occur associated with unauthorized use of the site, causing degradation to natural habitat and sensitive species. In addition, sensitive species would not benefit from the conservation, maintenance, active management, monitoring, and compensatory mitigation set forth in mitigation measures MM-BIO-1 through MM-BIO-8b proposed for the project. However, as no development would occur under this alternative, compared to the proposed project, this alternative would result in reduced impacts to biological resources.

##### Cultural Resources

The No Project Alternative would not require any ground-disturbing activities. Therefore, there would be no potential to impact unknown archaeological resources potentially located within the project site. Further, there would be no potential to disturb previously unidentified human remains that may be present on the project site. As such,



mitigation measures MM-TCR-1 through MM-TCR-4 proposed for the project would not be implemented or required for this alternative. Although there may be a reduced level of direct impact to cultural resources, any previously undiscovered on-site resources could be subject to continued degradation due to lack of preservation of the undeveloped site. Nonetheless, compared to the proposed project, this alternative would result in a reduced level of impact to cultural resources as no ground disturbance would occur.

### Energy

Under the No Project Alternative, energy use associated with construction or operation of future residences at the site, including from electricity use and natural gas use, would not occur. No construction would occur; therefore, no construction-related energy impacts associated with the operation of construction equipment and worker and vendor vehicles would occur like the proposed project. This alternative would not introduce any people or uses that would generate energy use. In comparison to the proposed project, this alternative would reduce energy use. However, as described in Section 3.5, Energy, of this EIR, the proposed project's impacts related to energy emissions would be less than significant. Therefore, compared to the proposed project's less than significant impact to Energy, the No Project Alternative would have no impacts.

### Geology and Soils

Under the No Project Alternative, the project site would remain in its current state. Existing topography and on-site soils would not be disturbed by any development. Although the project site would still be subject to potential seismic hazards such as seismic ground shaking, under this alternative, no structures would be present on site. Additionally, paleontological resources would be avoided as no grading or construction would occur. Implementation of MM-GEO-1 as proposed for the project's potential impacts to paleontological resources would not be required under this alternative. Thus, the risk of loss, injury, or death involving seismic hazards or other geologic conditions would be reduced compared to development of the proposed project.

### Greenhouse Gas Emissions

Under the No Project Alternative, greenhouse gas (GHG) emissions associated with construction or operation of future residences at the site, including from electricity use, natural gas use, water use, and solid waste handling would not occur. No construction would occur; therefore, no construction-related GHG impacts associated with the operation of construction equipment and worker and vendor vehicles would occur like the proposed project. This alternative would not introduce any people or uses that would generate greenhouse gas emissions. GHG emissions associated with vehicular trips would not occur. In comparison to the proposed project, this alternative would reduce greenhouse gas emissions. However, as described in Sections 3.7, Greenhouse Gas Emission, and 3.19 of this EIR, the proposed project's impacts related to GHG emissions would be less than significant. Therefore, compared to the proposed project's less than significant impact to GHGs, the No Project Alternative would have no impacts.

### Hazards and Hazardous Materials

Under the No Project Alternative, no land uses would be introduced that could result in the use or generation of hazardous materials. In comparison to the proposed project, this alternative would not have the potential for transport, accidental release, or spill of hazardous materials during construction of the proposed project and would not expose people or structures to the potential of wildland fires, as the site would remain undeveloped. However, as described in Sections 3.8, Hazards and Hazardous Materials, and 3.19 of this EIR, the proposed project's impacts

related to hazards and hazardous materials would be less than significant. Therefore, compared to the proposed project's less than significant impact to hazards/hazardous materials, this alternative would have no impacts.

### Hydrology and Water Quality

Under the No Project Alternative, no development would occur, and no impervious surfaces would be created. The existing on-site hydrologic conditions, drainage patterns, and drainage volumes would remain unaltered. Water quality would also remain unchanged. However, no best management practices would be implemented, and stormwater runoff would continue to leave the project site untreated. Additionally, as described in Sections 3.9, Hydrology and Water Quality, and 3.19 of this EIR, the proposed project's impacts to hydrology and water quality would be less than significant. Therefore, compared to the proposed project's less than significant impact to Hydrology/Water Quality, this alternative would have no impacts.

### Land Use and Planning

Under this alternative, the project site would remain undeveloped and none of the discretionary approvals identified for the project would be required. The proposed General Plan Amendment (GPA) and rezone of the site from Industrial (I) to Specific Plan Area would not be required. However, this alternative would not meet many of the overall goals of the City's General Plan, including accommodating growth in areas that can sustain a concentration of a variety of uses in areas suitable for multimodal transportation and achieving balanced distribution of land uses to meet the needs of residents and businesses. Nonetheless, because discretionary approvals would not be required to change the existing land use and zoning designations under this alternative to allow for intended development (i.e., potential conflict regarding consistency with applicable regulations), impacts to land use and planning would be slightly reduced compared to the proposed project.

### Noise

The project site is currently vacant and does not generate any noise. Under the No Project Alternative, the project site would remain undeveloped and would not create any new sources of construction or operational noise. Additionally, this alternative would not generate any groundborne vibration. However, as described in Sections 3.11, Noise, and 3.19 of this EIR, the proposed project's impacts to noise would be less than significant. Therefore, compared to the proposed project's less-than-significant impact to Noise, this alternative would have no impacts.

### Population and Housing

The project site is currently undeveloped. The No Project Alternative would not displace existing housing or people or induce population growth in the area, as no development would occur. However, this alternative would also not contribute to meeting regional housing demands. Similar to the proposed project, this alternative would not displace any housing or people. This alternative would have no impact on inducing unplanned population growth compared to the proposed project's less-than-significant impacts.

### Public Services

The No Project Alternative would not result in an increase in demand for public services since no development would occur. Specifically, the No Project Alternative would not increase the demand for police and fire protection services, nor would this alternative increase the demand on parks, schools, and library services. As stated in Sections 3.13, Public Services, and 3.19 of this EIR, the proposed project would result in less-than-significant

impacts to public services. Therefore, compared to the proposed project's less-than-significant impact to public services, this alternative would have no impacts.

### Recreation

Under the No Project Alternative, there would not be an increased demand for park and recreational facilities. As such, payment of the City's Public Facility Fees by the applicant would not be required. However, under this alternative, recreation and open space amenities proposed as part of the project would also not be developed. As stated in Section 3.14, Recreation, of this EIR, the proposed project would result in less-than-significant impacts to recreation. Because this alternative would not result in increased demands to parks and recreation, impacts would be reduced compared to the proposed project.

### Transportation

Under the No Project Alternative, no development would occur. Therefore, this alternative would have no direct impact on vehicle miles traveled (VMT), would not result in hazards due to design features, and would not alter emergency access, such that no impact would occur. However, compared to the proposed project, this alternative would not promote sustainability by focusing housing development in an infill area identified as having low VMT due to proximity to existing employment, entertainment, schools, markets, parks, transit, and shopping centers. Additionally, other improvements, such as circulation and pedestrian improvements, as well as undergrounding of existing overhead utilities, would not occur under this alternative. Compared to the proposed project, the No Project Alternative would result in no impacts related to transportation.

### Tribal Cultural Resources

The No Project Alternative would not require any ground-disturbing or other construction/development activities. Therefore, there would be no potential to impact unknown tribal cultural resources potentially located within the project site. However, although there may be a reduced level of direct impact to tribal cultural resources, any previously undiscovered on-site resources could be subject to continued degradation due to lack of preservation with the undeveloped site.

Nevertheless, because the site would not be disturbed under this alternative, mitigation measures MM-TCR-1 through MM-TCR-4 proposed for the project would not be implemented or required under this alternative. Compared to the proposed project, this alternative would result in a reduced level of impact to tribal cultural resources.

### Utilities and Service Systems

No development would occur under the No Project Alternative. As such, the increase in demand for water service, wastewater service, and solid waste handling services would be eliminated. As discussed in Sections 3.17, Utilities and Service Systems, and 3.19 of this EIR, impacts to utilities and service systems were determined to be less than significant under the proposed project. Nonetheless, because no development would occur under this alternative, the demand for utilities would be eliminated. Therefore, impacts to utilities and service systems would be reduced under this alternative compared to the proposed project and no impacts on utilities and service systems would occur.

### Wildfire

The No Project Alternative would not introduce any development and would therefore not impair any emergency response plan or evacuation plan, exacerbate wildfire risk, nor expose occupants to hazards. As discussed in

Sections 3.18, Wildfire, and 3.19 of this EIR, impacts to wildfire were determined to be less than significant under the proposed project. Nonetheless, because no development would occur under this alternative, no impacts related to wildfire exacerbation would occur under this alternative.

### Summary and Relation to Project Objectives

Since the No Project Alternative would not provide any development, overall impacts would be reduced compared to the proposed project. However, certain benefits would not be realized under this alternative, including the provision of housing units as identified in the General Plan in an infill area; restoring, managing, and conserving biological resources; and enhanced uses and connectivity in the surrounding area.

As the No Project Alternative would not develop the site or allow for housing, this alternative would not fulfill any of the project objectives.

## 4.4.4 Existing Land Use Designation Alternative

Under the Existing Land Use Designation Alternative, the project site would be developed per the City's General Plan land use designation as an Industrial (I) land use. The purpose of the Industrial land use designation is to "provide a setting for the full range of indoor manufacturing, distribution, warehousing, processing, and general service uses that are adequately served by vehicular arterials and utilities. Industries that use hazardous materials, require heavy equipment, and/or that generate sustained noise levels are deemed appropriate for this Zone." The Industrial Zone is intended to implement and be consistent with the Industrial land use designation of the General Plan (City of San Marcos 2018). For the purpose of this analysis, and to provide a direct comparison against the proposed project, the existing land use alternative assumes development of 480,000 square feet of research and development area with a 220,000-square-foot (1,440 spaces), four-story parking structure. Similar to the project, over 17 acres would be set aside for biological preservation (please refer to Figure 4-1, Existing Land Use Designation Alternative).

### Comparison of the Effects of the Existing Land Use Designation Alternative to the Proposed Project

#### Aesthetics

The Existing Land Use Designation Alternative would develop industrial uses on the currently undeveloped site. As described above, to provide a direct comparison against the proposed project, it has been assumed that under this alternative the industrial layout of the site would reflect a similar footprint to that of the proposed project. Similar to the proposed project, this alternative would develop 15.28 acres and preserve 17.94 acres of the 33.2-acre project site. This alternative would consist of development of 480,000 square feet of research and development area with a 220,000-square-foot (1,440 spaces), four-story parking structure. This alternative would similarly result in similar less than significant impacts or no impacts related to scenic vistas, scenic highways, and visual character or quality, or lighting and glare compared to the proposed project. The visual character of the site would change from vacant to industrial, which is consistent with the existing land use designation and immediately adjacent uses to the north. New sources of lighting would be introduced, but similar to the project, would be required to comply with the City's Light and Glare Standards. Therefore, aesthetic impacts of the Existing Land Use Designation Alternative would be comparable to the proposed project.

## Air Quality

Under the Existing Land Use Designation Alternative, air pollutant emissions associated with project construction including emissions associated with grading, site preparation, site finishing and building finishing would occur, which would be similar to the proposed project. Mitigation would be required to reduce potential construction air quality impacts.

Under the Existing Land Use Designation Alternative, mobile source operational emissions from light vehicle trips may be similar to or lower than the proposed project, depending upon the number of employee vehicles driving to and from the proposed project site. However, industrial development would likely result in greater stationary source operational air pollutant emissions compared to the proposed project's residential use of the site. Industrial uses including manufacturing generally use more energy and water than residential land uses, which translate to increased air pollutant emissions related to energy generation, energy transmission, etc. Diesel particulate matter emissions from heavy-duty equipment operations and heavy-duty truck trips associated with industrial warehouses may also generate significant operational emissions, which could potentially result in associated health impacts to nearby sensitive receptors. Unlike operation of a residential development, development of the Existing Land Use Designation Alternative could result in significant long-term Toxic Air Contaminant emissions, including diesel particulate matter. Industrial development of the site may also result in adverse impacts from odors associated with manufacturing or processing. As such, this alternative would likely result in greater impacts to air quality compared to the proposed project.

## Biological Resources

The development footprint of the Existing Land Use Designation Alternative would result in a similar ground disturbance area on the project site. Development of this alternative would result in a similar potential to impact existing biological resources on site, including loss of upland vegetation communities and impacts to special-status species, riparian habitat and sensitive natural communities and jurisdictional wetlands and waterways. Like the project, this Alternative would likely require mitigation measures similar to MM-BIO-1 through MM-BIO-8b in order to reduce impacts to biological resources. With implementation of mitigation measures similar to those proposed for the project, this alternative would result in similar impacts to biological resources compared to the project.

## Cultural Resources

The development footprint of the Existing Land Use Designation Alternative would be similar to the proposed project and would result in similar ground-disturbance. Therefore, the potential to impact to unknown archaeological resources located within the project site, as well as unidentified human remains, would occur within a similar area in comparison to the proposed project. As with the proposed project, implementation of mitigation measures similar to MM-TCR-1 through MM-TCR-4 would be required to reduce potential impacts to unknown/unidentified cultural resources. With implementation of mitigation measures similar to those proposed within the project, this alternative would result in a similar level of impacts to cultural resources compared to the project.

## Energy

Development of the Existing Land Use Designation Alternative would result in construction and operational energy use. Energy use during construction would be similar to the proposed project and primarily be associated with construction equipment, as-necessary lighting, and electronic equipment such as computers inside temporary construction trailers and heating, ventilation, and air conditioning. The operation of this alternative would require

electricity for multiple purposes, proposed daily uses associated with the industrial land use, cooling, lighting, and various equipment. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage.

The Existing Land Use Designation Alternative demand for energy use is expected to be similar to that required to serve a 449-unit residential project (approximately 1,388 residents), or greater. As such, demand for energy is determined to be comparable to the proposed project under the Existing Land Use Designation Alternative.

Similar to the proposed project, this alternative would be required to comply with building requirements (including Title 24 standards) designed to ensure efficient energy use, reduce energy demand, and comply with state and local renewable energy and energy efficiency requirements. Petroleum use during operation of the Existing Land Use Designation Alternative is expected to be increased compared to the proposed project as a result of industrial land use activities and vehicles. As such, demand for energy is determined to be comparable to the proposed project under this alternative, and less-than-significant impacts to energy would occur.

### Geology and Soils

Under the Existing Land Use Designation Alternative, although the project site would be developed with different land uses, ground-disturbance areas would be similar. Development under this alternative would be subject to the same potential seismic hazards such as seismic ground shaking. This alternative would also require abiding by geological recommendations, such as the ones identified in the geotechnical evaluation for the proposed project. Similar to the proposed project, due to the high paleontological resources potential on-site, mitigation such as MM-GEO-1 as proposed for the project would be required under this alternative. Compared to the proposed project, this alternative would result in similar level of impacts to geology and soils.

### Greenhouse Gas Emissions

Construction and operation of the Existing Land Use Designation Alternative would result in construction GHG emissions that are primarily associated with use of off-road construction equipment, on-road vehicles, vendor trucks, daily operations, and worker vehicles. Although this Alternative proposed assumes the same building footprint to that of the proposed project, the Greenhouse Gas Emissions associated with this alternative are expected to be greater due to typical daily operations associated with such industrial land uses. Additionally, the City's zoning does not have an open space requirement for industrial uses like the projects residential land use requires.

Although this alternative is not expected to conflict with an applicable GHG-related plan, policy, or regulation due to consistency with the existing General Plan land use and zoning designation, the Existing Land Use Designation Alternative is expected to result in greater emissions compared to the project due to operational uses typical of industrial projects. As such, impacts to GHG emissions under the Existing Land Use Designation Alternative would be greater in comparison to the proposed project.

### Hazards and Hazardous Materials

Similar to the proposed project, there is the potential for the Existing Land Use Designation Alternative to generate hazardous materials during construction; however, existing federal and state standards are in place for the handling, storage, and transport of these materials. Because the Existing Land Use Designation Alternative would result in development of industrial uses on site, operation of this alternative would likely result in increased use of hazardous materials on site compared to the household products that would be utilized under the project's

proposed residential uses. Therefore, compared to the proposed project, this alternative would result in greater impacts related to hazards and hazardous materials.

### Hydrology and Water Quality

As described above, the Existing Land Use Designation Alternative would result in a similar disturbance area on the project site. Due to uses associated with industrial development, it is assumed that this alternative would introduce more impervious surfaces to the site compared to the proposed project, as the proposed project would be required to incorporate open space and landscaped areas for residents under the City's Municipal Code. Development of both the proposed project and this alternative would alter the existing on-site hydrologic conditions, drainage patterns, and drainage volumes in comparison to existing vacant conditions. It is expected that this alternative, like the proposed project, would also incorporate all required and applicable best management practices to avoid any violations of water quality standards, or otherwise modify or adversely affect surface and groundwater quality or increase runoff rate or volume from the site. Therefore, as compared to the proposed project, this alternative would result in similar, less-than-significant impacts.

### Land Use and Planning

Because development of this alternative would be consistent with land uses identified in the City's General Plan, a GPA and rezone would not be required. Development of an industrial use on the project site would also be consistent with adjacent land uses. By contrast, the proposed project would introduce population growth in an area of the City that has not been accounted for in the City's General Plan. Therefore, because this alternative would avoid a GPA/Rezone, which would be required for the proposed project, no impacts would occur under this alternative, and impacts would be reduced compared to the proposed project.

### Noise

The Existing Land Use Designation Alternative would result in similar ground-disturbance on site in comparison to the proposed project. As analyzed in Sections 3.11 and 3.19 of this EIR, proposed project noise impacts were determined to be less than significant. Construction noise of this alternative is expected to be similar to that of the proposed project. Operationally, this alternative may result in greater noise generation during working hours, particularly with components such as outdoor work yards. While it is likely that such industrial uses would generate more noise than a residential development, it would be expected that the uses would comply with the City's noise ordinance regarding generation of noise at the property line, and that appropriate mitigation would be implemented as needed to reduce potential impacts to less than significant. Therefore, compared to the proposed project, this alternative would result in similar impacts.

### Population and Housing

The Existing Land Use Designation Alternative would not induce substantial unplanned population growth in the area, either directly or indirectly. This alternative would propose a new business consistent with the General Plan and provide for infrastructure only as needed to serve the alternative. The proposed project seeks to change the land use designation of the project site to allow for development of residential land uses that have not been accounted for in the City's General Plan; however, the proposed new homes and associated estimate of 1,388 residents is not expected to substantially induce unplanned population growth in this infill area. Like the proposed project the Existing Land Use Designation Alternative would have no impact related to displacing substantial

numbers of people or housing. Therefore, impacts related to population and housing for this alternative would be reduced compared to the proposed project's less-than-significant impact.

### Public Services

Similar to the proposed project, the Existing Land Use Designation Alternative would result in an increase in demand for public services due to the development of a currently vacant site. However, industrial development under this alternative would likely result in less of a demand on public services (especially parks, schools, and libraries) compared to residential development proposed by the project. Therefore, impacts to public services under this alternative would be reduced compared to the proposed project but remain less than significant.

### Recreation

Unlike the proposed project, the Existing Land Use Designation Alternative would not result in an increase in demand for parks and recreation services over existing conditions, as no residents or substantial population generation would be associated with development of Industrial uses on site. Additionally, this alternative would likely not require usable open space on site. This alternative would result in reduced impacts to recreational facilities compared to the proposed project but remain less than significant.

### Transportation

The Existing Land Use Designation Alternative is assumed to be served by a larger volume of large trucks and machinery during both construction and operation of this alternative. However, such uses would be compatible with surrounding industrial uses, and are unlikely to result in hazards due to design features or incompatible uses, similar to the proposed project. It is anticipated that this alternative would be required to provide adequate emergency access, similar to the project.

VMT for the Existing Land Use Designation Alternative is expected to be similar or greater in comparison to the proposed project as a result of operational uses typical of an industrial project, including daily transport and volume of large trucks. Further, this alternative would not promote sustainability by focusing housing development in an infill area identified as having low VMT due to proximity to existing employment, entertainment, schools, markets, parks, transit, and shopping centers.

This Alternative would like result in a larger volume of large trucks and machinery during both construction and operation of this alternative. However, such uses would be compatible with surrounding industrial uses, and are unlikely to result in hazards due to design features or incompatible uses. Compared to the proposed project, the Existing Land Use Designation Alternative is expected to result in similar or greater impacts related to transportation.

### Tribal Cultural Resources

This alternative would result in new industrial development within a similar footprint as the proposed project on a currently vacant site. As such, this alternative would have similar potential to affect unknown tribal cultural resources compared to the proposed project. It is expected that this alternative would require implementation of mitigation measures similar to MM-TCR-1 through MM-TCR-4 proposed for the project. Thus, with the implementation of mitigation, impacts to tribal cultural resources would be similar to the proposed project's and less than significant.



## Utilities and Service Systems

The Existing Land Use Designation Alternative demand for water service, energy and solid waste is expected to be greater than that required to serve a 449-unit residential project (approximately 1,388 residents). As described under the Air Quality analysis above, industrial uses including manufacturing generally use more energy and water than residential land uses. As such, the Existing Land Use Designation Alternative's demand for utilities and service systems is likely to be greater than the proposed project.

## Wildfire

As discussed in Sections 3.18 and 3.19 of this EIR, and in the Fire Protection Plan (Appendix N to this EIR), impacts to wildfire were determined to be less than significant under the proposed project. The site is located in an urbanized, infill area and is not located in any fire hazard severity zones or near any local responsibility areas, state responsibility areas, or near lands classified as very high fire hazards severity zones. Like the proposed project, the Existing Land Use Designation Alternative would be required to comply with all applicable state and local fire codes. Because impacts related to hazards and hazardous materials under this alternative would likely increase as a result of industrial uses on site, the potential for fire risk under this alternative is expected to increase in comparison to the proposed project. Similar to the proposed project, the Existing Land Use Designation Alternative is not expected to impair an emergency response plan or evacuation plan. Impacts related to wildfire under this alternative are expected to be similar to or slightly greater than the proposed project.

## Summary and Relation to Project Objectives

Under the Existing Land Use Designation Alternative, the project site would be developed per the City's General Plan land use designation as an Industrial (I) land use. As described above, this alternative would develop 15.28 acres and preserve 17.94 acres of the 33.2-acre project site. This alternative would consist of development of 480,000 square feet of research and development area with a 220,000-square-foot (1,440 spaces), four-story parking structure. Similar to the project, over 17 acres would be set aside for biological preservation.

Because development of the Existing Land Use Designation Alternative would include grading and development of the same site, construction-related impacts would be similar to the proposed project and would require similar mitigation for impacts to air quality, biological resources, cultural resources and tribal cultural resources. However, the industrial use of the site would be expected to result in greater impacts to air quality, GHG emissions, hazards and hazardous materials, transportation, and wildfire, in comparison to the impacts resulting from the proposed project's residential use, and additional mitigation may be required.

This alternative would promote infill development on site; however, it would not fulfill any of the basic project objectives and would also not aid the City in achieving its Regional Housing Needs Assessment allocation. Furthermore, the proposed project site has been designated for industrial development under the existing and previous General Plans but has remained vacant, evidencing that its constraints have rendered it not marketable and socially and environmentally infeasible for industrial uses.

Although this alternative would be consistent with the existing designated land use and zoning for the site and adjacent land uses on La Mirada Drive, this alternative would not reduce or avoid significant environmental impacts and would not meet any project objectives.

## 4.4.5 Reduced Development Footprint Alternative

The Reduced Development Footprint Alternative has been developed in response to comments from the Wildlife Agencies and would reduce the development footprint at the site from 15.28 acres to 8.3 acres and reduce the number of residential units developed from 449 to 321 units. This alternative would be constructed to avoid all vernal pools and wetlands mapped across the site, including pools/basins found not to support vernal pool branchiopods (fairy shrimp), and achieve a 25% maximum building footprint at the site. In order to avoid all these areas while implementing basic project objectives, the project development footprint would be constructed in three separate, non-contiguous areas of the site: the northwest corner, the northeast corner, and the south-central portions of the site (refer to Figure 4-2, Reduced Development Footprint Alternative).

### Comparison of the Effects of the Reduced Development Footprint Alternative to the Proposed Project

#### Aesthetics

The Reduced Development Footprint Alternative would reduce the scope of the proposed project development footprint to 8.3 acres and reducing the housing unit count to 321 units but would introduce non-contiguous development in three areas of the site. Similar to the proposed project, this alternative would result in less-than-significant impacts related to aesthetics. The visual character of the site would change from vacant to residential in an urbanized and developed area. Compared to the proposed project, the Reduced Development Footprint Alternative would somewhat increase impacts related to visual character and consistency with surrounding, developed uses by developing three separate, non-contiguous areas of the site to maximize biological resource preservation. New sources of lighting would be introduced, but, similar to the project, would be required to comply with the City's Light and Glare Standards. Therefore, aesthetic impacts of the Reduced Development Footprint Alternative would be comparable to the proposed project.

#### Air Quality

Under the Reduced Development Footprint Alternative, air pollutant emissions associated with project construction, including emissions associated with grading, site preparation, site finishing and building finishing, would be similar compared to the proposed project. While this alternative would reduce the development footprint, additional construction work would be needed in discrete areas of the site. Similar to the proposed project, mitigation would be required to reduce potential air quality impacts associated with construction.

Under the Reduced Development Footprint Alternative, mobile source operational emissions from light vehicle trips would be lower than the proposed project as a result of the reduced unit count. As such, this alternative would likely result in overall reduced impacts to operational air quality compared to the proposed project.

#### Biological Resources

The Reduced Development Footprint Alternative would result in a reduced ground disturbance area on the project site based upon the 25% maximum development footprint layout. Because reduced ground disturbance would occur under this alternative, there would be less impact existing biological resources on site, specifically impacts to vernal pools.

However, although this alternative layout would reduce impacts to the vernal pools, it would cause a more severe significant impact to the federally listed threatened thread-leaved brodiaea (a Multiple Species Conservation Program Narrow Endemic species) as it would impact approximately 53% of the thread-leaved brodiaea and its critical habitat on site, in comparison to the project's direct impact to 19% of thread-leaved brodiaea.

In addition, the separated development areas and the irregular development footprints needed to accommodate housing would result in increased interfaces/edges of the development with the vernal pool and biological habitat areas, which would be greater than if the proposed project's single consolidated development envelope were developed. Edge effects refer to off-site and on-site indirect impacts that are short-term (i.e., not permanent) as a result of project construction or long-term (i.e., permanent) due to the design of the proposed project and the effects it may have to adjacent resources. Edge effects would potentially be increased under this alternative in comparison to the proposed project.

Therefore, similar to the project, this alternative would be required to incorporate mitigation measures similar to MM-BIO-1a through MM-BIO-8b to reduce significant impacts to biological resources. This alternative would result in increased impacts to thread-leaved brodiaea, but reduced impacts to vernal pools, in comparison to the project. Implementation of mitigation measures would be required to reduce this alternative to a less than significant impact.

### Cultural Resources

The Reduced Development Footprint Alternative would result in less ground-disturbance compared to the proposed project. Therefore, the potential to impact unknown archaeological resources located within the project site, as well as unidentified human remains, would occur within a smaller area compared to the proposed project, resulting in potentially reduced impacts. However, as with the proposed project, implementation of mitigation measures similar to MM-TCR-1 through MM-TCR-4 would be required to reduce potential impacts to unknown/unidentified cultural resources. With implementation of mitigation measures similar to those proposed within the project, this alternative is expected to result in a similar level of less-than-significant impacts to cultural resources compared to the project.

### Energy

Under the Reduced Development Footprint Alternative, development would result in construction and operational energy use. Energy use during construction would primarily be associated with construction equipment, as-necessary lighting, and electronic equipment, such as computers inside temporary construction trailers and HVAC, similar to the proposed project. Natural gas is not anticipated to be used during construction, similar to the proposed project, and would be temporary and negligible if used. Petroleum would be used throughout construction of the alternative and would be similar to the proposed project. While the footprint would be reduced compared to the proposed project, construction would be less efficient due to operations in three separate locations on site. Ultimately, like the proposed project, the petroleum consumed related to construction would be typical of construction projects of similar types and sizes and would not be wasteful or inefficient.

The operation of this alternative would also require electricity for multiple purposes, similar to the proposed project. The Reduced Development Footprint Alternative demand for energy use is expected to be similar to or slightly less than that required to serve the proposed project. Similar to the proposed project, this alternative would be required to comply with building requirements (including Title 24 standards) designed to ensure efficient energy use, reduce energy demand, and comply with state and local renewable energy and energy efficiency requirements. Like the proposed project, the operation of residential units would require natural gas for space heating and to power appliances, but compliance with Title 24 would ensure its efficient use. Petroleum use during operation would be

slightly reduced compared to the proposed project as fewer residents would operate fewer vehicles. However, ultimately this alternative may increase petroleum inefficiencies compared to the project by reducing residential units to be developed at this VMT-efficient urbanized infill location proximate to commercial uses, transit, and other infrastructure. As such, demand for energy is determined to be comparable to the proposed project under this alternative. Therefore similar, less-than-significant impacts to energy would occur under this alternative.

### Geology and Soils

Under the Reduced Development Footprint Alternative, ground-disturbance areas would be reduced. However, development under this alternative would be subject to the same potential seismic hazards, such as seismic ground shaking. This alternative would also require abiding by geological recommendations, such as the ones identified in the geotechnical evaluation for the proposed project. Similar to the proposed project, due to the high potential for paleontological resources on-site, mitigation such as MM-GEO-1 as proposed for the project would be required under this alternative. would be avoided because the potential for paleontological resources to be located on the project site is considered low. Compared to the proposed project, this alternative would result in similar level of impacts to geology and soils.

### Greenhouse Gas Emissions

Construction of the Reduced Development Footprint Alternative would result in construction GHG emissions that are primarily associated with use of off-road construction equipment, on-road vehicles, vendor trucks, and worker vehicles, similar to the proposed project.

Estimated annual operational GHG emissions from this alternative would be reduced compared to the proposed project as a result of the reduced unit count and associated vehicle trips, utility usage and development footprint area. Thus, this alternative would result in reduced GHG emissions compared to the proposed project.

### Hazards and Hazardous Materials

Similar to the proposed project, there is the potential for the Reduced Development Footprint Alternative to generate hazardous materials during construction; however, existing federal and state standards are in place for the handling, storage and transport of these materials. Because the Reduced Development Footprint Alternative would result in similar development of residential units on site, operation of this alternative would result in similar use of hazardous materials on site, such as household products, that would be utilized under the proposed project. Therefore, compared to the proposed project, this alternative would result in similar impacts related to hazards and hazardous materials.

### Hydrology and Water Quality

As described above, the Reduced Development Footprint Alternative would result in a reduced ground disturbance area on the project site as a result of the reduced building footprint compared to the proposed project. Due to the reduced footprint under this alternative, less impervious surfaces would be introduced to the site compared to the proposed project. Development of both the proposed project and this alternative would alter the existing on-site hydrologic conditions, drainage patterns, and drainage volumes in comparison to existing vacant conditions. There is a seasonal north-south trending drainage ditch in the southern portion of the project site, adjacent South Las Posas Road, that would be impacted as a result of this alternative layout. It is expected that this alternative, like the proposed project, would also incorporate all required and applicable best management practices to avoid any

violations of water quality standards, or otherwise modify or adversely affect surface and groundwater quality or increase runoff rate or volume from the site. Therefore, as compared to the proposed project, this alternative would result in similar, less-than-significant impacts to hydrology and water quality.

### Land Use and Planning

The Reduced Development Footprint Alternative would have no impact related to physically dividing an established community, like the proposed project. Because development of this alternative would introduce housing on site, a GPA and rezone would be required, similar to the proposed project. Similar to the proposed project, this alternative would introduce population growth in an area of the City that has not been accounted for in the City's General Plan. Like the proposed project, this alternative would not create a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. However, it would not promote sustainability through locating residential uses on an underutilized infill site proximate to existing schools, markets, parks, transit, and shopping centers to the same extent as the proposed project. Therefore, because this alternative would also require a GPA/Rezone but would not conflict with applicable plans, policies, and regulations, impacts under this alternative would result in similar impacts to land use to that of the proposed project.

### Noise

The Reduced Development Footprint Alternative would result in a reduced development footprint on site with 8.3-acres developed in comparison to the proposed project's development footprint of 15.28 acres. As analyzed in Sections 3.11 and 3.19 of this EIR, noise impacts associated with the proposed project were determined to be less than significant. Construction noise of this alternative is expected to be similar to that of the proposed project, although the construction schedule for this alternative would be slightly shorter. Operationally, this alternative would result in similar noise generation to that of the proposed project. Development of this alternative would be expected to comply with the City's noise ordinance regarding generation of noise at the property line, and appropriate mitigation would be implemented as needed to reduce potential impacts to less than significant. Therefore, as compared to the proposed project, this alternative would result in similar, less-than-significant impacts related to noise.

### Population and Housing

The Reduced Development Footprint Alternative would similarly introduce unplanned population growth in the area with the development of 321 housing units on the currently vacant site. The proposed project seeks to change the land use designation of the project site to allow for development of residential land uses that have not been accounted for in the City's General Plan. Development of this alternative would also require a GPA/Rezone. However, similar to the project, the new homes under this alternative would not be considered to substantially induce unplanned population growth as the project site is an infill site surrounding by existing roadways, utilities and development. Like the proposed project, this alternative would have no impact related to displacing substantial numbers of people or housing. Therefore, impacts related to population and housing for this alternative would be similar to the proposed project's less-than-significant impact.

### Public Services

Similar to the proposed project, the Reduced Development Footprint Alternative would result in an increase in demand for public services due to the development of a currently vacant site. However, due to the reduced number in housing units under this alternative in comparison to the proposed project, this alternative would likely result in

less of a demand on public services. Therefore, impacts to public services under this alternative would be slightly reduced compared to the proposed project, but remain less than significant.

### Recreation

Similar to the proposed project, the Reduced Development Footprint Alternative would result in an increased demand on existing park and recreational facilities within the City with the introduction of 321 housing units. However, similar to the proposed project, this alternative would be required to incorporate open space on site and would be required to pay into applicable developer and park impact fees. Therefore, impacts related to recreation for this alternative would be similar to the proposed project's less-than-significant impact.

### Transportation

The Reduced Development Footprint Alternative would be served by similar vehicle traffic during construction compared to the proposed project, though construction traffic access would be altered due to the modified footprint. Construction traffic impacts would be less than significant, as with the proposed project.

During operation, project access points for this alternative would be provided by one entry/exit off Linda Vista Drive to serve the apartments, and two different access points off La Mirada Drive to serve the rowhomes (one in the northwest corner and one in the northeast corner). It is anticipated that this alternative would provide adequate emergency access, similar to the project. Additionally, the detached site configuration of this alternative creates potential challenges for pedestrian connections, including incorporation of the urban trail as proposed by the project.

VMT for this alternative is likely to be similar in comparison to the proposed project. Compared to the proposed project, this alternative would result in similar, less-than-significant impacts related to transportation.

### Tribal Cultural Resources

This alternative would result in new development within a similar but slightly reduced footprint on the project site. As such, this alternative would have similar or slightly less potential to affect unknown tribal cultural resources compared to the proposed project. It is expected that this alternative would require implementation of mitigation measures similar to MM-TCR-1 through MM-TCR-4 proposed for the project. Thus, with the implementation of mitigation, impacts to tribal cultural resources would be similar to the proposed project and would be less than significant.

### Utilities and Service Systems

The Reduced Development Footprint Alternative demand for water service, energy, and solid waste is expected to be slightly less than that required to serve the proposed project as a result of the reduced unit count from 449 to 321 units under this alternative. However, the detached site configuration under this alternative may create challenges for utility connection and service. Nonetheless, demand for utilities and service systems is determined to be slightly less than the proposed project under this alternative, but still result in a less-than-significant impact, similar to the proposed project.

### Wildfire

As discussed in Sections 3.18 and 3.19 of this EIR, and in the Fire Protection Plan (Appendix N to this EIR), impacts to wildfire were determined to be less-than-significant under the proposed project. The site is located in an urbanized, infill area and is not located in any fire hazard severity zones or near any local responsibility areas, state

responsibility areas, or near lands classified as very high fire hazards severity zones. Like the proposed project, the Reduced Development Footprint Alternative's development of 321 residential units would be required to comply with all applicable state and local fire codes. This alternative would therefore not exacerbate wildfire risk nor expose occupants to hazards or other significant risks of loss, injury, or death concerning wildland fires. Impacts related to wildfire under this alternative are expected to be similar to the proposed project.

### Summary and Relation to Project Objectives

The Reduced Development Footprint Alternative would include development of 321 units on 8.3 acres of the 33.2-acre site, with the remaining 24.9 acres preserved (refer to Figure 4-2). Because development of this alternative would include construction of the same site, construction-related impacts would be similar to the proposed project and, like the proposed project, would require similar mitigation for impacts to air quality, biological resources, cultural resources and tribal cultural resources. While the development footprint under this alternative (8.3 acres) would be less than that analyzed for the proposed project (15.28 acres), edge effects (indirect impacts that are short-term (i.e., not permanent) as a result of project construction or long-term (i.e., permanent) due to the design of the proposed project and the effects it may have to adjacent resources) to biological resources and impacts to federally listed threatened and state-listed endangered thread-leaved brodiaea would be increased. Although this alternative would avoid or minimize impacts to vernal pools in comparison to the proposed project, it would cause greater impacts thread-leaved brodiaea.

While this alternative would develop infill housing on an urbanized site and rezone the site to residential to assist the City to implement its housing goals (project objectives 1 and 2), it would implement less housing compared to the proposed project and less efficiently promote infill development. This alternative would also provide less varied housing compared to the proposed project, including less affordable housing (objective 3). This alternative would meet objective 4 by avoiding vernal pools but would result in greater impacts to thread-leaved brodiaea that would be inconsistent with objective 4. This alternative would not meet project objective 5 because the site would be atypically designed in a manner that does not enhance connectivity. This alternative would also not meet objective 6 to the same extent as the project, as it would not maximize housing density for the City.

## 4.5 Environmentally Superior Alternative

Table 4-1 provides a qualitative comparison of the impacts for each Alternative compared to the proposed project. As shown in Table 4-1, the No Project Alternative would eliminate all of the significant impacts identified for the project. However, the No Project Alternative would not meet any of the project objectives.

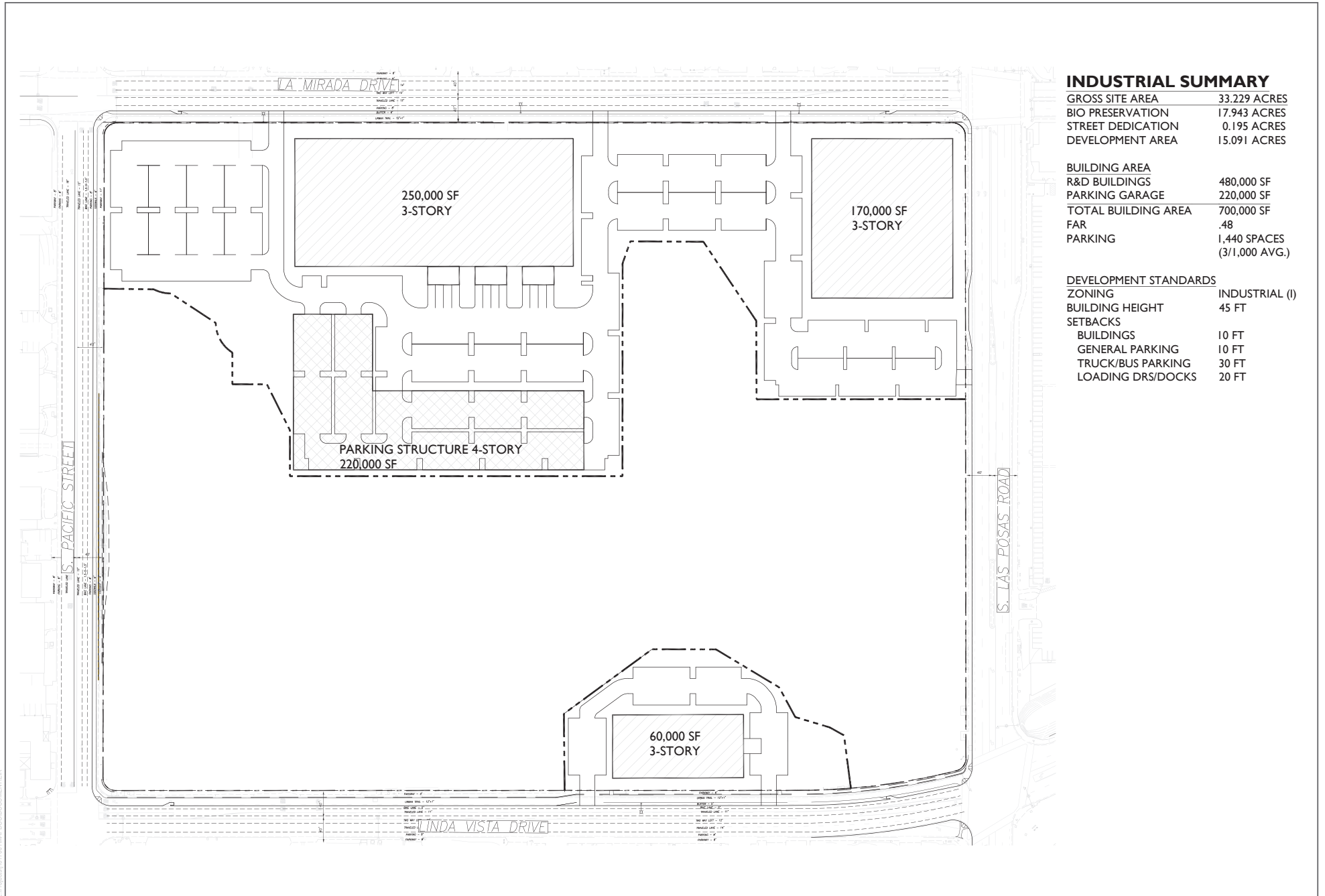
CEQA Guidelines Section 15126.6(e)(2) states that if the No Project alternative is identified as the environmentally superior alternative, then an environmentally superior alternative should be identified among the other alternatives. The Reduced Development Footprint would meet most of the project objectives while reducing the severity of impacts related to air quality, biological resources, cultural resources, and tribal cultural resources in comparison to the proposed project due to the reduced unit count and reduced development footprint. While the Reduced Development Footprint Alternative may result in greater impacts to thread-leaved brodiaea, requiring potentially greater off-site mitigation, on the whole it would reduce impacts associated with the proposed project and therefore, among the feasible alternatives identified herein, it is considered to be environmentally superior.

Table 4-1. Comparison of Impacts of Proposed Project and Alternatives

| Environmental Topic             | Proposed Project | No Project Alternative | Existing Land Use Designation Alternative | Reduced Development Footprint Alternative |
|---------------------------------|------------------|------------------------|---|---|
| Aesthetics                      | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Air Quality                     | LTSM             | No Impact (Reduced)    | LTSM (Same or Greater)                    | LTSM (Reduced)                            |
| Biological Resources            | LTSM             | No Impact (Reduced)    | LTSM (Same)                               | LTSM (Reduced)                            |
| Cultural Resources              | LTSM             | No Impact (Reduced)    | LTSM (Same)                               | LTSM (Reduced)                            |
| Geology and Soils               | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Greenhouse Gas Emissions        | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |
| Hazards and Hazardous Materials | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |
| Hydrology and Water Quality     | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Land Use                        | LTS              | No Impact (Reduced)    | LTS (Reduced)                             | LTS (Same)                                |
| Noise                           | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Population and Housing          | LTS              | No Impact (Reduced)    | No Impact (Reduced)                       | LTS (Same)                                |
| Public Services                 | LTS              | No Impact (Reduced)    | LTS (Same or Reduced)                     | LTS (Same)                                |
| Recreation                      | LTS              | No Impact (Reduced)    | No Impact (Reduced)                       | LTS (Same)                                |
| Transportation                  | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |
| Tribal Cultural Resources       | LTSM             | No Impact (Reduced)    | LTSM (Same)                               | LTSM (Reduced)                            |
| Utilities and Service Systems   | LTS              | No Impact (Reduced)    | LTS (Same)                                | LTS (Same)                                |
| Wildfire                        | LTS              | No Impact (Reduced)    | LTS (Same or Greater)                     | LTS (Same)                                |

**Notes:** Impact Status: LTS = Less than Significant Impact; LTSM = Less than Significant with Mitigation.





### INDUSTRIAL SUMMARY

|                   |              |
|-------------------|--------------|
| GROSS SITE AREA   | 33.229 ACRES |
| BIO PRESERVATION  | 17.943 ACRES |
| STREET DEDICATION | 0.195 ACRES  |
| DEVELOPMENT AREA  | 15.091 ACRES |

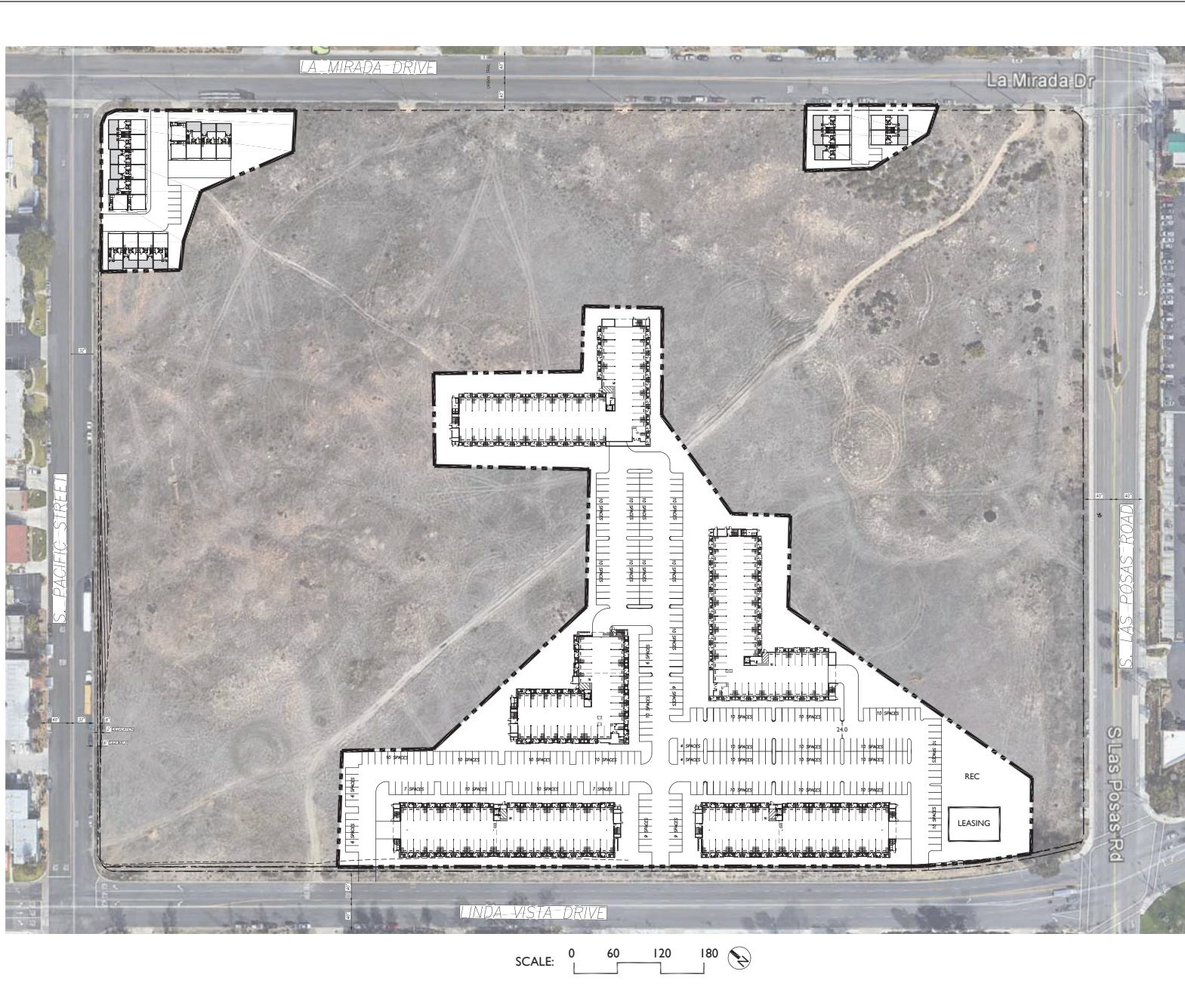
|                     |                                |
|---------------------|--------------------------------|
| BUILDING AREA       |                                |
| R&D BUILDINGS       | 480,000 SF                     |
| PARKING GARAGE      | 220,000 SF                     |
| TOTAL BUILDING AREA | 700,000 SF                     |
| FAR                 | .48                            |
| PARKING             | 1,440 SPACES<br>(3/1,000 AVG.) |

### DEVELOPMENT STANDARDS

|                   |                |
|-------------------|----------------|
| ZONING            | INDUSTRIAL (I) |
| BUILDING HEIGHT   | 45 FT          |
| SETBACKS          |                |
| BUILDINGS         | 10 FT          |
| GENERAL PARKING   | 10 FT          |
| TRUCK/BUS PARKING | 30 FT          |
| LOADING DR/DOCKS  | 20 FT          |

SOURCE: Summa Architecture, 2022

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**PROJECT SUMMARY**

|                 |                            |
|-----------------|----------------------------|
| RESIDENCES      | 321 HOMES                  |
| GROSS SITE AREA | 33 ACRES (8.3 ACRES NET)   |
| GROSS DENSITY   | 9.4 DU/AC (32.3 DU/AC NET) |

**ROWHOMES**

|    |           |            |
|----|-----------|------------|
| 2  | 2BD/2BA   | 1,200 SF   |
| 2  | 3BD/3BA   | 1,310 SF   |
| 7  | 3BD/3.5BA | 1,736 SF   |
| 10 | 4BD/3.5BA | 1,890 SF   |
| 21 | 1.2 AC =  | 17.5 DU/AC |

**PARKING SUMMARY**

|                        |                          |
|------------------------|--------------------------|
| 21 X 2.33 =            | 49 SPACES                |
| REQUIRED COVERED (1:1) | 21 (PROVIDED 42 GARAGES) |
| TOTAL PROVIDED         | 50 SPACES (INCL 8 OPEN)  |

|                    |          |          |
|--------------------|----------|----------|
| PRIVATE OPEN SPACE | REQUIRED | PROVIDED |
| 21 X 50 SF         | 1,050 SF | 1,200 SF |

|                            |          |          |
|----------------------------|----------|----------|
| COMMON OPEN SPACE          | REQUIRED | PROVIDED |
| GROUND FLOOR SF X 30%      | 2,338 SF |          |
| TOT LOT (1:25 DU) 1X400 SF | 400 SF   |          |
| TOTAL                      | 2,738 SF | 3,000 SF |

**APARTMENTS**

|     |           |          |
|-----|-----------|----------|
| 150 | 1B/1BA    | 740 SF   |
| 125 | 2BD/2.5BA | 1,256 SF |
| 25  | 3BD/2.5BA | 1,579 SF |
| 300 | 8.2 AC =  | 36 DU/AC |

**PARKING SUMMARY**

|                        |             |             |
|------------------------|-------------|-------------|
| 1BD                    | 150 X 1.5 = | 225 SPACES  |
| 2&3BD                  | 150 X 2 =   | 300 SPACES  |
| GUEST                  | 300 X .33 = | 99 SPACES   |
| TOTAL                  |             | 624 SPACES  |
| PROVIDED COVERED (1:1) |             | 300 GARAGES |
| PROVIDED OPEN          |             | 360 OPEN    |
| TOTAL PROVIDED         |             | 660 SPACES  |

|                    |           |           |
|--------------------|-----------|-----------|
| PRIVATE OPEN SPACE | REQUIRED  | PROVIDED  |
| 300 X 50 SF        | 15,000 SF | 15,000 SF |

|                             |           |           |
|-----------------------------|-----------|-----------|
| COMMON OPEN SPACE           | REQUIRED  | PROVIDED  |
| GROUND FLOOR SF X 30%       | 48,600 SF |           |
| TOT LOT (1:25 DU) 12X400 SF | 4,800 SF  |           |
| PLAYGROUND                  | 800 SF    |           |
| TOTAL                       | 54,200 SF | 55,000 SF |

SOURCE: Summa Architecture, 2022

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# 5 Environmental Effects Found Not to Be Significant

As required by Section 15128 of the California Environmental Quality Act Guidelines, the following is a discussion of the environmental effects that were considered as part of this environmental impact report (EIR) but were determined to have “No Impact” and, therefore, are not discussed in detail in Chapter 3, Environmental Analysis, of this EIR. Agriculture/Forestry Resources and Mineral Resources were the only environmental issue areas eliminated from Chapter 3 and are briefly discussed below.

As discussed in Chapter 2, Project Description, of this EIR, the project proposes development of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.28 acres within the approximately 33-acre project site. The project proposes a General Plan Amendment and Rezone from Industrial (I) to Specific Plan Area (SPA).

## 5.1 Agriculture and Forestry Resources

The project site is designated as Urban and Built-Up Land by the California Department of Conservation Farmland Mapping and Monitoring Program (CDC 2021). As a result, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.

Furthermore, the project site is not zoned for agricultural use or designated as land under the Williamson Act, nor is the project site zoned for forest land or timberland production (CDC 2014). Therefore, implementation of the proposed project would not result in the loss or conversion of forest land. No impact would occur regarding conflicts with existing zoning for agricultural use or forest land.

Designated farmland does not exist within the vicinity of the project site. The proposed project would not result in substantial changes that could result in the conversion of farmland to non-agricultural use. The proposed project site is surrounded entirely by developed land, except for one vacant lot adjacent to the southern portion of the site. This vacant lot is designated Light Industrial by the City of San Marcos. Other existing development adjacent to the project site include Light Industrial, Parks, Mixed Use, and Commercial uses (City of San Marcos 2021). Given the extent of development surrounding the proposed project site, the proposed project would not result in the conversion of any existing farmland, and **no impact** would occur.

## 5.2 Mineral Resources

According to the City’s General Plan – Conservation and Open Space Element, the City has land classified in all four Mineral Resource Zones (MRZ) (City of San Marcos 2012). The different MRZs are defined as follows:

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- **MRZ-3:** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- **MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ zone.

California does not require that local governments protect land designated as MRZ-1, MRZ-3, or MRZ-4. However, the City is responsible for recognizing lands designated as MRZ-2 and protecting these areas from premature development incompatible with mining. City lands designated as MRZ-2 include small portions between Double Peak, Mt. Whitney, and Franks Peak, and small portions in the northern Sphere of Influence within Twin Oaks Valley Neighborhood (City of San Marcos 2012). These locations do not overlap with the proposed project site; therefore, no loss of known mineral resources would occur.

Furthermore, the project site is not designated as a locally important mineral resource recovery site on any local General Plan, Specific Plan, or other land use plan (City of San Marcos 2012). Thus, due to the location and nature of the proposed project, there would be **no impact** to mineral resources.

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# 6 Other CEQA Considerations

## 6.1 Significant Unavoidable Impacts

California Environmental Quality Act (CEQA) Guidelines, Section 15126.2(b), requires that an environmental impact report (EIR) describe any significant impacts that cannot be avoided, including those impacts that can be mitigated but not reduced to a less-than-significant level. Chapter 3, Environmental Analysis, of this EIR describes the potential environmental impacts of the Pacific Specific Plan Project (proposed project) and recommends mitigation measures to reduce impacts, where feasible.

As discussed in this EIR, implementation of the proposed project would not result in any significant and unavoidable impacts. All potentially significant impacts would be reduced to a less-than-significant level with mitigation incorporated.

## 6.2 Growth Inducement

Section 15126.2(d) of the CEQA Guidelines mandates that the growth-inducing nature of a proposed project be discussed. This CEQA Guideline states the growth-inducing analysis is intended to address the potential for the proposed project to “foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” Further, the CEQA Appendix G Checklist (Population and Housing) also mandates that a CEQA document speak to the proposed project’s likelihood to induce substantial population growth in an area, either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., through extension of roads or other infrastructure).

A project may be distinguished as either facilitating planned growth or inducing unplanned growth. Facilitating growth is related to the establishment of direct employment, population, or housing growth that would occur within a project site. Inducing growth is related to lowering or removing barriers to growth or by creating an amenity or facility that attracts new population/economic activity. For purposes of this EIR analysis, a significant growth inducement impact would occur if the proposed project, and associated infrastructure improvements, directly or indirectly removes obstacles to growth such that the induced growth would significantly burden existing community services, the environment, or cause a demand for General Plan Amendments. This section contains a discussion of the growth-inducing factors related to the proposed project and as defined under CEQA Guidelines, Section 15126.2(d). A project is defined as growth inducing when it directly or indirectly:

1. Fosters population growth
2. Includes the construction of additional housing in the surrounding environment
3. Removes obstacles to population growth
4. Taxes existing community service facilities, requiring construction of new facilities that could cause significant environmental effects
5. Encourages or facilitates other activities that could significantly affect the environments, either individually or cumulatively

It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The project consists of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.09 acres within the 33-acre project site. The project would also include a total of 927 parking spaces, and 134,985 square feet of private common open space area. The proposed project also includes landscaping, bio-retention areas, and circulation improvements. The remaining 17.94 acres of the 33.2-acre project site would be preserved and restored open space and habitat area. The proposed project would have a density of approximately 29.8 dwelling units per acre, not including the proposed open space and habitat area. With the open space area included, the density of the proposed project would be approximately 13.5 dwelling units per acre.

The project proposes a General Plan Amendment, Rezone, Specific Plan, Tentative Map, and Multifamily Site Development Plan. The General Plan Amendment and Rezone would change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area (SPA). The Specific Plan has been prepared with the intent to provide a comprehensive plan to ensure the efficient development of a new residential community. The Specific Plan serves as both a policy document and a regulatory document for the systematic implementation of the policies and goals of the General Plan (the Specific Plan is included as Appendix M to this EIR). The Tentative Map presents specific lot configurations for the site. The Multifamily Site Development Plan will configure the site for multifamily dwelling units, street configuration, infrastructure, recreational open space, and private open space.

As described in Section 3.12, Population and Housing, it is anticipated that the proposed residential development at the project site could generate a population increase of up to approximately 1,388 people. Although the proposed project would accommodate some planned growth within the City of San Marcos (City), and not all potential future residents of the project are expected to be new to the City, the project could still result in unplanned growth for the City because residential land use(s) for the project site were not accounted for in the City's General Plan.

As described in Section 3.12 of this EIR, the City of San Marcos is forecast to grow from 98,915 persons in 2020 to 109,095 persons in 2035, which is a population increase of 10,180 (SANDAG 2013). Additionally, San Diego Association of Governments allocated 3,116 housing units to the San Marcos area for the 2021–2029 Housing Element Cycle (SANDAG 2020). Approval of the proposed project to residential land use could help the City accommodate this substantial population growth and its need for housing. The proposed project would be subject to compliance with the City's General Plan Housing Element goals and policies, compliance with housing-related ordinances in the City's Municipal Code, and applicable development fees as outlined in Section 3.12 of this EIR. Compliance with these policies, ordinances, and fee provisions would ensure any growth at the site is adequately planned for in terms of ensuring the provision of community service facilities, including utilities, public services, recreation, emergency access, roadways, etc.

There is no hardline number or percentage available to determine whether or not the estimated introduction of approximately 1,388 people would be considered a substantial increase in population. However, the San Diego Association of Governments 2050 Regional Growth Forecast is intended to be used as a starting point for regional planning as opposed to a prescribed growth pattern. While the City has determined that there are adequate sites available with appropriate designations/zoning to accommodate the remaining Regional Housing Needs Assessment allocation for the current General Plan Housing Element planning period (2013 to 2021), and has tentatively determined the same for the 2021–2029 Draft Housing Element Update (City of San Marcos 2021), the City has the discretion to adjust allocated housing units/sites as necessary to balance proposed plans for residential development with approved/constructed residential development. It is likely the site will act to accommodate some of the planned population growth in the City.

Potential indirect growth-inducing impacts are unlikely to result from the proposed project. No extension of infrastructure is anticipated to be needed for the proposed project, as the site is located in an urbanized, infill area.



In addition, the proposed project would be required to evaluate project-specific requirements, which would ensure the development does not overtax existing infrastructure or community service facilities, consistent with the guidelines, standards, design features and mitigation measures provided in this EIR.

Therefore, while the proposed project would induce growth beyond current estimates and forecasts, it would not remove obstacles to further growth, expand infrastructure, or overtax existing community facilities. The proposed project would therefore not be considered substantially growth inducing.

## 6.3 Significant Irreversible Environmental Changes

CEQA Guidelines, Section 15126.2(c), requires that an EIR identify any significant irreversible environmental changes associated with the proposed project. Such changes include, for example, the intensification of land use or irreversible damage from environmental accidents associated with the proposed project.

As described above, the project consists of 449 residential units, including a mix of apartments, rowhomes, villas, and affordable flats on approximately 15.28 acres within the 33-acre project site. The remaining 17.94 acres of the 33-acre project site would be preserved and restored open space and habitat area. The proposed General Plan Amendment and Rezone would change the General Plan designation and Zoning from Industrial (I) to Specific Plan Area.

The proposed project change in land use would not be an intensification of land use over the existing industrial designation. As analyzed in Chapter 4 of this EIR, industrial development under the existing land use and zoning designation would result in additional and more severe environmental impacts in comparison to the development under the proposed project designations. Nevertheless, as analyzed throughout Chapter 3 of this EIR, the proposed project may result in significant impacts to air quality, biological resources, cultural resources, and tribal cultural resources (see Tables 1-1 and 1-2 in Chapter 1, Executive Summary, of this EIR). Although all potential impacts as a result of the proposed project would be mitigated to a less-than-significant level, such impacts would be considered irreversible.

Further, construction and/or operation of the proposed project would require the use of resources that include, but are not limited to, soils, gravel, concrete, and asphalt, lumber and other related forest products, petrochemical construction materials, steel, copper, and other metals, water, fuels, and energy. As such, the proposed project would result in the short-term and long-term use of fossil fuels and other nonrenewable resources.

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Stephen M. Nielsen, Dexter Wilson Engineering, Inc. – Sewer & Water Memorandum  
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Mark Storm, Dudek – Noise Technical Report  
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Matthew DeCarlo, Dudek – Cultural Resources Inventory Report

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