

DRAFT

ENVIRONMENTAL IMPACT REPORT

FOR THE

DESERT RETREAT SPECIFIC PLAN PROJECT

SCH NO. 2022070300

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1.0 INTRODUCTION

The Desert Retreat Specific Plan (“Desert Retreat Specific Plan” or “Project”) is proposed to implement the City of Indio General Plan to allow the development of a new master-planned residential community on approximately 378 acres of land in the northern portions of the City of Indio (City), as shown in **Section 3.0: Project Description, Figure 3.0-2: Local Vicinity Map**. The Desert Retreat Specific Plan would allow development of an active adult community for residents aged 55 and above containing up to 1,500 residential units along with a community clubhouse and other recreational amenities. The average density of residential development would be 4.1 du/ac. This new community would be located immediately north and west of the existing Sun City Shadow Hills community. Sun City Shadow Hills is also an age-restricted community for residents aged 55 and above.

This section provides information on the background of the Project, as further described in **Section 3.0** and assessed in this Draft Environmental Impact Report (Draft EIR), the environmental review process being conducted by the City for this Project, and the organization and content of this Draft EIR. See **Section 9.0** for a definition of terms and acronyms used in this Draft EIR.

PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

This Draft EIR (State Clearinghouse No. 2022070300) has been prepared by the City, in compliance with the California Environmental Quality Act (CEQA) California Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations, Chapter 3, Section 15000 et seq.) to evaluate the potential environmental effects of the Project. This Draft EIR identifies and discusses potential Project-specific and cumulative environmental impacts that may occur should the Project be implemented. The intent of this EIR is to (1) be an informational document, which serves to inform public agency decision makers and the general public of the potential environmental impacts of the Project; (2) identify possible ways to minimize or avoid any potential significant impacts either through mitigation or the adoption of alternatives; and (3) disclose to the public required agency approvals.

In accordance with the State CEQA Guidelines, public agencies are required to make written findings for each environmental impact of the project identified in the EIR. If the lead agency and responsible agencies decide that the benefits of the proposed project outweigh any identified unmitigated significant environmental effects, they will be required to adopt a statement of overriding considerations supporting their actions. The discretionary actions involved in the implementation of the Project by the City as well as responsible and trustee agencies are described in **Section 3.0**.

STANDARDS FOR ADEQUACY

The principal use of an EIR is to provide input and information to the comprehensive planning analysis undertaken for the proposed Project. Given the role of the EIR in this planning and decision-making process, it is important that the information presented in the EIR be factual, adequate, and complete.

The standards for adequacy of an EIR, defined in Section 15151 of the State CEQA Guidelines, are as follows:

“An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.”

ENVIRONMENTAL REVIEW PROCESS

The CEQA Guidelines define a process for environmental review that includes a series of steps that must be completed prior to the Lead Agency’s taking action on a project.

Scoping Process

In compliance with Section 15201 of the State CEQA Guidelines, the City has taken steps to provide opportunities for public participation in the environmental process. An Initial Study (IS) and Notice of Preparation (NOP) were distributed on July 18, 2022 to public agencies and interested parties for a 30-day public review period to solicit comments and to inform agencies and the public of the Project. A copy of the IS/NOP and responses received are included in **Appendix A: Notice of Preparation (NOP), Initial Study (IS), Comment Letters on the NOP and IS, and Distribution List** of this Draft EIR.

Additionally, the City held a public scoping meeting on July 28, 2022, from 6:30 p.m. to 8:00 p.m. at the Shadow Hills High School in Indio.

Topics evaluated in this Draft EIR have been identified based on the responses to the NOP and the review of the project by City staff. The City determined through this initial review process that impacts related to the following environmental topics are potentially significant and require an assessment in this Draft EIR:

- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic and Transportation
- Utilities and Service Systems

Other environmental topics were eliminated or scoped out from detailed review in this Draft EIR during the NOP and Initial Study process because the impacts were determined to have no impact, less than significant impacts, or significant impacts that could be mitigated to a less than significant level. These environmental issues are not discussed in detail within this Draft EIR. For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to **Appendix A** and **Section 8.1: Effects Not Found to Be Significant**.

Review and Comment on the Draft Environmental Impact Report

CEQA requires that the Lead Agency provide the public and agencies the opportunity to review and comment on the Draft EIR. The City is providing a 45-day period for review and comment on this Draft EIR, starting February 28th, 2023 and ending April 14th, 2023.

Copies of this Draft EIR have been sent to the State Clearinghouse, responsible agencies, other agencies that have commented on the NOP, as well as to all interested parties that have requested notice and copies of the Draft EIR.

The Draft EIR is also available for review at the following locations:

- City of Indio Community Development Department, 100 Civic Center Mall, Indio, CA 92201
- Indio Public Library - 100 Civic Center Mall, Indio, CA. 92201

In addition, the Draft EIR is available at the City's website at:

<https://www.indio.org/departments/community-development-department/notices-documents/-folder-178>

Interested individuals, organizations, responsible agencies, and other agencies can provide written comments about the Draft EIR addressed to:

Kevin Snyder, AICP, Director of Community Development
City of Indio
(760) 541-4255/
ksnyder@indio.org

When submitting comments, please note “**Desert Retreat Specific Plan EIR**” in the subject line and include the name of the contact person within the commenting agency (if applicable).

After completion of the 45-day review period, a Final EIR will be prepared that includes responses to comments submitted on the Draft EIR and any necessary corrections or additions to the Draft EIR. The Final EIR will be made available to agencies and the public prior to the City's determination on the Project. Once the Final EIR is complete, the City may certify the Final EIR, prepare Findings, adopt a mitigation monitoring and reporting program, and issue a Notice of Determination, which is the final step in the CEQA process.

ORGANIZATION OF THE DRAFT EIR

As stated, a principal objective of CEQA is to ensure that the environmental review process be a public one. In meeting this objective, an EIR informs members of the public, reviewing agencies, and decision makers of the physical impacts associated with a project. To this end, specific features have been incorporated into this Draft EIR to make it more understandable for non-technically oriented reviewers while providing the technical information necessary for the City to proceed with processing the Project. Sections of the Draft EIR are organized as follows:

Section 1.0: Introduction, provides information on the background of the Project, the environmental review process, and organization of the Draft EIR.

Section 2.0: Summary, presents a concise summary of the environmental information, analysis and conclusions in this EIR.

Section 3.0: Project Description, presents a description of the Project which addresses the location of the Project Site, the objectives of the Project, the characteristics of the Section 31 Specific Plan, and identification of all discretionary actions requiring approval to allow the implementation of the Project.

Section 4.0: Environmental Setting, describes the existing physical setting of the Project Site and the surrounding area.

Section 5.0: Environmental Impact Analysis, contains information and analysis of the potential for the Project to result in significant environmental effects for each of the topics evaluated in this Draft EIR.

Section 6.0: Alternatives, discusses alternatives to the Project that have been developed and analyzed to provide additional information on ways to avoid or lessen the impacts of the Project.

Section 7.0: Growth-Inducing Impacts, discusses the growth-inducing impacts of the Project.

Section 8.0: Other Environmental Impacts

- **Section 8.1: Effects Not Found to Be Significant**, discusses the potential impacts of the Project that were determined not to be significant and were therefore not discussed in detail in this Draft EIR.
- **Section 8.2: Significant Irreversible Environmental Changes**, discusses the significant irreversible and irretrievable commitment of resources associated with the implementation of the Project.

Section 9.0: Terms, Definitions, and Acronyms, provides a list of specially defined terms and acronyms used throughout this Draft EIR.

Section 10.0: Organizations and Persons Consulted, lists persons involved in the preparation of this Draft EIR or who contributed information incorporated into this Draft EIR.

Section 11.0: References, lists the principal documents, reports, maps, and other information sources referenced in this Draft EIR.

Appendices to this EIR include technical information and other materials used in the preparation of this Draft EIR.

2.0 SUMMARY

The proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) would enable development of up to 1,500 residential units on approximately 378 acres of land in the City of Indio (City). This section provides information on the background of the Project, as described in **Section 3.0: Project Description**, assessed in this Draft Environmental Impact Report (Draft EIR). See **Section 9.0: Terms, Definitions, and Acronyms** for a definition of terms, definitions, and acronyms used in this Draft EIR.

PURPOSE OF THIS ENVIRONMENTAL IMPACT REVIEW

The environmental review process for this Project is being conducted by the City. The California Environmental Quality Act (CEQA) was adopted to inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities, identify the ways that environmental damage can be avoided or significantly reduced, and prevent significant but avoidable damage to the environment by requiring changes in project implementation through the use of feasible alternatives or mitigation measures. When it is determined through preliminary review that a proposed project may result in significant impacts to the quality of the natural environment, preparation of an EIR in accordance with the process defined in CEQA is required.

The City, acting as the Lead Agency for the planning and environmental review of this Project, has prepared this EIR in compliance with CEQA, including the CEQA Guidelines (California Code of Regulations Title 14 Section 15000 et seq.).

OVERVIEW OF PROPOSED PROJECT

Regional and Community Setting

The Desert Retreat Specific Plan Area (Project Site) is located in the Coachella Valley in the City of Indio (City) within Riverside County, California, as shown in **Section 3.0: Project Description, Figure 3.0-1: Regional Location Map**. The Project Site lies within what is described as Section 4 of Township 5 South, Range 7 East.

The Project Site includes approximately 378-acres in the northwest portion of the City. The Project Site includes Assessor’s Parcel Numbers (APNs) 691-110-002, 003, 004, 008, 011, 014, 021, 023, and 025. As illustrated in **Section 3.0: Project Description, Figure 3.0-2: Local Vicinity Map**, the Project Site is bounded by 38th Avenue to the north, Madison Street to the east, 40th Avenue to the south, and Jefferson Street to the west.

Project Characteristics

The Desert Retreat Specific Plan includes development standards, land use regulations, and programs to guide development of the Specific Plan area in a manner that is consistent with the City of Indio General Plan while also maintaining flexibility to respond to changing conditions that factor into any long-term development. This Specific Plan implements all applicable elements of the General Plan and includes detailed information about the site's master plan and infrastructure improvements such as circulation, water, sewer, grading, and drainage design.

The Desert Retreat Specific Plan is included in the Appendices to this Draft EIR as **Appendix B: Desert Retreat Specific Plan**.

Land Use

The Desert Retreat Specific Plan would allow development of an active adult community for residents aged 55 and above, containing up to 1,500 residential single-family homes along with a community clubhouse and other recreational amenities on approximately 378 acres of land, as shown in **Section 3.0: Project Description, Figure 3.0-3: Conceptual Land Use Plan**. The average density of residential development would be 4.1 du/ac. This new community would be located immediately north and west of the existing Sun City Shadow Hills community. Sun City Shadow Hills is also an age-restricted community for residents aged 55 and above. The Project would include a community clubhouse in the center of the Project with outdoor resident amenities such as pickle ball courts, bocce ball courts, tennis courts, a swimming pool, and water features. A network of pedestrian open space corridors is integrated throughout the Project to facilitate walking.

The proposed Specific Plan would permit development of an age-restricted, single-family home community. A summary of the land uses defined in the Desert Retreat Specific Plan is presented in **Section 3.0: Project Description, Table 3.0-1: Desert Retreat Specific Plan—Land Use Plan Summary**. As shown in **Table 3.0-1**, the residential development would occur on approximately 352 acres, of which approximately 72 acres would be dedicated to open space and pedestrian trails, with the Community Clubhouse and Recreation area located on approximately 26 acres. Two acres along the edges of the Specific Plan Area would be dedicated as public Right-of-Way.

The Project Site is designated “Suburban Neighborhood” in the Indio 2040 General Plan and is located within the “Northwest Indio Subarea,” as identified in the General Plan. The Northwest Indio subarea is described in the General Plan as including a mix of older rural neighborhood development, newer suburban neighborhood development, agricultural uses, and undeveloped open space; as well as offering the potential for the development of Suburban Neighborhoods, Desert Estate Neighborhoods, and resorts. The General Plan calls for new Suburban Neighborhoods abutting existing similar neighborhoods, transitioning to Desert Estate Neighborhoods abutting the surrounding open desert areas. The Specific Plan is proposed to implement the Indio General Plan by defining development standards, land use regulations, and programs to guide development of a new suburban residential neighborhood adjacent

to the existing Sun City Shadow Hills residential community. It serves as a link between the Indio General Plan and subsequent development within the Specific Plan area.

Circulation Plan

Vehicular and pedestrian circulation systems are an important component of the Project. The Project Site has direct vehicular access to 40th Ave, Madison Steet, 38th Ave, and Jefferson Street. Vehicles would circulate through standard residential streets and Project entrances in compliance with City engineering and Fire Department design standards. The vehicular circulation system would consist of a central collector road with local residential streets serving individual neighborhoods. **Section 3.0: Project Description, Figure 3.0-4: Vehicle Circulation** illustrates the proposed vehicle circulation plan for the development. Key aspects of the circulation system include off-site street improvements, entries, pedestrian access, and public transportation, detailed below.

Off-Site Street Improvements

40th Ave exists along the southern edge of the Specific Plan area frontage and would reach a width of 100 feet from each end of the right of way (R.O.W.). Jefferson Street would also reach 100 feet from the end of each R.O.W. and exists along the western end of the property. Madison Street to the east would reach a width of 88 feet from each R.O.W, and Avenue 38 to the north would reach a width of 70 feet from each R.O.W. per the Public Typical Street Sections. All improvements would occur within the Project Site and the frontages within. No off-site frontages are proposed for improvements.

Entries

Vehicular access to the site is proposed from gated entries on 40th Avenue, Madison Street, and 38th Avenue. The primary entry would occur on 40th Avenue near the corner with Madison Street. Entries would include landscaping, entry signage, and pedestrian walkway connections. The design for the main entry on 40th Avenue would be a standard signalized entrance.

Pedestrian Access

The Project would feature pedestrian access throughout the development via an integrated system of pedestrian trails/paseos and connecting on-street sidewalks. The Project provides multiple pedestrian access points to connect the interior walkway system that allow residents free access to public sidewalks/trails on 40th Avenue, Madison Street, Jefferson Street, 38th and 39th Avenue, as shown by **Section 3.0: Project Description, Figure 3.0-5: Pedestrian Circulation Plan**.

A description of each of the pedestrian components is found below:

Pedestrian Paseos: Pedestrian circulation would be provided by the pedestrian paseos, optional residential sidewalks, and low speed/low volume private streets in individual planning areas. The pedestrian paseos would provide residents with landscaped corridors that pass through residential common areas.

Residential Sidewalks: The residential sidewalks may be a desirable amenity in some locations, but are not required, except where indicated on the Specific Plan Pedestrian Circulation Plan (**Section 3.0: Project Description, Figure 3.0-5**). The Desert Retreat Specific Plan includes local street sections that allow for optional curb-adjacent sidewalks on local streets. However, sidewalks would be provided in higher traffic areas.

Public Transportation

Transit in the Project vicinity is provided by Sun Line Transit Agency (SLTA), which is the regional transit provider for Riverside County. Currently, SLTA operates a variety of bus routes in Indio. Routes 800, 801, 802, and 803 provide school shuttle service to Shadow Hills High School. Each bus operates once on weekday mornings before school starts and once on weekday evenings after school. Bus stops are located directly adjacent to the Project Site on the corner of Avenue 38 and Talavera Boulevard, and Avenue 40 and Madison Street. Access to the Project Site is very limited via transit during any other time of day, with the closest transit stop being a bus stop located near the Walmart Supercenter on the corner of Showcase.

Infrastructure and Utility Improvements

Infrastructure and utility improvements would be installed as necessary to support the Project development, including water, sanitary sewer, drainage and flood retention systems, and dry utility improvements (electricity, natural gas, and telecommunications). All improvements proposed within the Project Site have conceptual designs and locations.

Conceptual Grading Plan

The existing topography within the Project Site is generally flat with slopes from northwest to southeast. Surface elevations currently range from 52 feet above sea level to a low of 38 feet above sea level.

As shown in **Section 3.0: Project Description, Figure 3.0-8: Conceptual Grading and Drainage Plan**, grading would create building pads while intending to keep the earthwork balanced on site. Because the site is relatively level, grading design for the majority of the site would not deviate greatly from existing conditions, with the exception of an elevated clubhouse and surrounding areas near the center of the project. Soil has been imported onto the site from a nearby CVWD flood control project and has been incorporated into the conceptual grading to facilitate the elevated clubhouse and adjacent pads. Grading would achieve positive surface flows and protect all structures and physical improvements from the 100-year storm through surface runoff into open retention basins above the finished surfaces. Soil erosion and water quality would be protected both during and after construction is completed. The 100-year storm water runoff volume in the new developed condition created by impervious surfaces (roofs, pavement) would be retained on site. The surface drainage would generally flow southeast across the Project Site via Project roadways and be managed using retention facilities within open space paseos. Retention areas are shown in their conceptual locations at the low points for tributary areas of the Project, shown in **Section 3.0: Project Description, Figure 3.0-8**.

Phasing

Development of the Specific Plan is intended to be developed by a single developer. Phasing is allowed so long as each phase accommodates the orderly extension of circulation, utilities, and infrastructure in accordance with the final conditions of approval for each Project and the City's Public Works Department. The Project is expected to be built in 5 phases, as shown in **Section 3.0: Project Description, Figure 3.0-9: Phasing Plan.**

Open Space and Parks

The Desert Retreat Specific Plan defines a combination of common and private open space areas for use by future residents. Key open space elements include:

Central Recreation Amenity: The Project is designed around a central 26.1-acre recreational center that may contain amenities such as a fitness center, a movement studio, locker rooms, a covered outdoor pool, billiards tables, a golf simulator, arts and crafts room, game room, multipurpose event lawn, sports courts, water features, outdoor kitchen, firepit seating ball room, catering kitchen, terrace, and indoor coffee bar with an outdoor social bar.

Paseos: Paseos provide an interconnected system of open spaces that link individual residences throughout the community with one another, the perimeter public sidewalk system, and the central clubhouse amenity. These provide separated amenity corridors that encourage walking and biking throughout the community.

These open space areas would be privately owned and maintained by the Project Homeowner's Association.

Conceptual Landscape Plan

The Desert Retreat Specific Plan includes guidelines for the treatment of streets, parkways, the edges of the community, entries, and open space areas. The landscape architectural theme for the Desert Retreat Community would play an important role in creating a community identity and continuity throughout the Project as it develops. The landscape architectural design would reflect a "desertscape" theme with supplemental ornamental accent landscaping while providing a commitment to water conservation and low maintenance. This would be accomplished with the proper layout of water efficient plant materials and a state-of-the-art irrigation system, including the use of recycled water from CVWD's adjacent wastewater treatment facility. Plant materials would be arranged throughout the Project Site in both formal/geometric and informal/natural (organic) designs across distinct landscape planning zones with both contrasting and complementary design elements. The Specific Plan would also allow the use of water features to enhance public spaces and focal points along the paseos. Broad canopy trees would be utilized to provide shade for sidewalks and vehicles. Shrubs and accent plantings would be substantial to promote long term vigorous growth. Major planting types, such as parking lot shrubs, hedges, or streetscape plants should also reflect the accepted palette.

Signage

Signs within residential areas will be restricted to high-quality materials and color palettes that complement the architecture of the surrounding environment. The design of wayfinding signs within the Project Site will be consistent in quality of design and implementation, and convey the realization of an integrated signage system throughout the Project Site. Secondary entrance/wayfinding signs will be permitted as monument or wall-mounted signs at each of the other signalized intersections entering the Project Site. Signage throughout the Project Site will comply with the City of Indio Sign Ordinance Section 150.101 for residential subdivisions.¹

Lighting Design

Residential Development Lighting

Lighting fixtures within residential areas will be hooded and directed downward to minimize light, direct glare impacts, and spillage on neighboring properties, as well as reduce impacts on dark skies. Additional requirements of light fixtures would include illuminating areas and elements such as paths, entryways, and focal elements; shielding to avoid direct views of any unshielded light source from pedestrian or vehicular sight lines; shielding to direct light spillover away from adjacent residential areas with a 100 percent cut-off capability; and fixture dimming and cut-off capability as certified by the Dark Sky Association.

Roadway lighting throughout residential areas will be positioned to enhance safety at key points along streets, including intersections, paseo crossings, and other crosswalks. This lighting will be directed downward to minimize glare and spillover.

Wall and Fence Design

Walls and fences would be constructed in various settings throughout the community to provide privacy and security.

Community Walls

Walls are a major component in achieving a consistent overall community design theme. Wall and fence materials will be designed to be compatible with adjacent architectural and landscape elements. A strong cohesive appearance will be achieved through the use of a community wall design that is compatible with the architectural theme.

Perimeter and Community Walls

A gated community is proposed with a perimeter community wall. A solid decorative wall will be used at the perimeter of the Project Site as well as inside the Project adjacent to major streets and landscape

¹ City of Indio Municipal Code (IMC). Title XV. Chapter 150. Section 150.101.

areas. Tubular steel fencing may be constructed at the perimeter of the Project in place of the solid decorative wall where such fences are adjacent to open space or where necessary for drainage purposes.

Open Space Walls

Where view opportunities are adjacent to open space areas, a concrete curb would be used. Wrought iron or tubular steel fencing may be installed on top of this wall at the option of the individual owners, provided the overall height does not exceed 6 feet.

Interior Walls for Single Family Lots

Interior side and rear walls constructed around individual single-family lots will consist of masonry block, or low maintenance tubular steel fencing, with a minimum height of 5 feet above the finish floor elevation of the home. Interior rear walls located adjacent to an open space corridor will be a maximum of 3' high (6' high pool walls/ fences for safety), measured from the highest finish grade. Interior side walls will be painted stucco or split fence, slump, sack finish, or masonry block, where they can be viewed from the open space areas.

Residential Development Standards and Design Guidelines

Development Standards

The proposed Specific Plan includes development standards for residential development. The maximum allowed lot coverage varies based on the type and size of home; up to 35 percent lot coverage would be permitted on Estate lots, up to 50 percent on Conventional residential lots, and up to 70 percent for Cluster residential areas.

The maximum height also varies based on the type and size of home. The maximum allowed height that would be for Estate lots is 20 feet while the maximum height allowed for Conventional lots would be 35 feet. Cluster residential development would have the highest allowable maximum building height, up to 50 feet.

Intended Uses of this EIR

Section 15124 (d) of the State CEQA Guidelines requires that an EIR project description include a list of permits and other approvals required to implement a proposed project, the agencies expected to use the EIR in their decision making, and related environmental review and consultation requirements. This Draft EIR assesses the potential environmental effects of the proposed Desert Retreat Specific Plan. This Draft EIR has been prepared to inform the City of Indio, any responsible and trustee agencies, and interested parties of the potential for significant environmental impacts, as well as identify measures to mitigate any significant effects if feasible.

The CEQA Guidelines require an EIR to include a statement briefly describing the intended uses of the EIR, including a list of agencies expected to use the EIR in their decision making as well as the list of the permits and other approvals required to implement the project.

The City will use this Draft EIR to provide information on the potential environmental effects of the following proposed actions:

- Approval of the Desert Retreat Specific Plan;
- Approval of a Fugitive Dust Control Plan for construction activities;
- Approval of a Development Agreement; and
- Approval of a Tentative Tract Map and subsequent Design Review for the homes and community clubhouse buildings that would be allowed by the Specific Plan.

Responsible Agencies

Section 15124 (d) of the State CEQA Guidelines requires that an EIR project description include a list of permits and other approvals required to implement a proposed project, the agencies expected to use the EIR in their decision making, and related environmental review and consultation requirements. The following are anticipated responsible agencies which may rely on this Draft EIR for their discretionary approvals required to implement the Project:

Coachella Valley Water District

- Preparation and approval of a Water Supply Assessment.
- Review and approval of the design and plans for the Project's domestic water, recycled water, and wastewater systems.

California Public Utilities Commission

- Issuance of a permit to construct in accordance with General Order No. 131-D related to the necessary modification, alteration, or addition to electric transmission/power/distribution line facilities, or of new, upgraded, or modified substations.
- Approval or certification related to any other applicable general order, rule, or regulation concerning utility modification, conveyance, or delivery.

Colorado Regional Water Quality Control Board

- Approval may include, but is not limited to, the following: (1) General Construction Stormwater Permit; (2) Standard Urban Stormwater Mitigation Plan; and (3) Submittal of a Recycled Water Report for the use of recycled water as a dust control measure for construction.
- Approval of a Water Quality Certification under Section 401 of the Clean Water Act.

South Coast Air Quality Management District

- Approval of a Fugitive Dust Control Plan for construction activities.

PROJECT OBJECTIVES

The CEQA Guidelines require an EIR to include a statement of the objectives of the project that address the underlying purpose. The objectives of the Desert Retreat Specific Plan are:

- Develop a thoughtfully planned and integrated master-planned residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts, and motor vehicles;
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards, and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system;
- Provide water, sewer, and drainage systems to adequately service the project;
- Promote quality development consistent with the goals and policies of the Indio General Plan;
- Create a walkable community by incorporating pedestrian paths within the project and allowing for connections to public sidewalks/trails at each perimeter street.

SUMMARY OF ALTERNATIVES

Analysis of a reasonable range of alternatives would be required by *CEQA*. The purpose of the alternatives analysis is to provide additional information on ways to avoid or minimize the significant effects of a Project. The Alternatives to the Project evaluated in this Draft EIR include:

1. Alternative 1 – No Project/No Development
2. Alternative 2 – Existing General Plan
3. Alternative 3 – Prior Zoning - Commercial Component
4. Alternative 4 – Residential Project with Golf Course
5. Alternative 5 – Reduced Density
6. Alternative 6 – Roundabout Entry Intersection

A brief description of each of these Alternatives is provided below with a summary of the evaluation of each.

No Project – No Project/No Development

The *CEQA* Guidelines require consideration of a No Project alternative, with the definition of this alternative being based on several factors including consideration of what is likely to occur if the Project is not approved. As required by *CEQA*, the analysis must examine the impacts that might occur if the Project Site is left in its existing condition, as well as what may reasonably be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services.

Under the No Project/No Development Alternative (Alternative 1), the Project Site would remain in its current vacant, undeveloped condition. This status would continue and the existing environmental conditions would be maintained.

None of the impacts associated with construction and operational activities would occur if Alternative 1 was selected. No construction and operations related air quality emission impacts would occur.

Summary of Comparative Impacts

A summary comparison of impacts associated with the Project Alternatives is provided in **Section 6.0: Alternatives, Table 6.0-14: Comparison of Alternatives to Project**. As described above, the No Project/No Development Alternative would avoid all impacts of the proposed Project, but as all the impacts of the Project would be less than significant or can be mitigated to less than significant, this alternative would not avoid or lessen any significant impacts. The No Project/No Development Alternative would not implement the City's General Plan, which designates the site for development with single-family housing.

Alternative 2 – Existing General Plan

The Existing General Plan Alternative (Alternative 2) examines the impacts that would result from development of the Project Site in accordance with the number of residential units allowed by the current Suburban Neighborhood General Plan land use designation for the site. The Suburban Neighborhood designation allows the development of single-family detached homes in low intensity neighborhoods. The maximum gross density permitted is 8 Dwelling Units per acre. Applying this maximum gross density to the 378-acre Project Site, 3,095 single family homes could be developed on the site. The homes in this alternative would not be age restricted.

Summary of Comparative Impacts

Alternative 2 would result in incrementally greater impacts when compared to the Project with respect to air quality, greenhouse gas emissions, population and housing, schools, transportation, water service and supply, wastewater, and solid waste. Impacts related to Alternative 2 would be similar with respect to agriculture, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. No significant impacts would be avoided or substantially reduced to a level of less than significant with Alternative 2.

Alternative 3 – Prior Zoning - Commercial Component

The Existing General Plan Alternative (Alternative 3) examines the impacts that would result from development of the Project Site in accordance with the number of residential units allowed by the zoning for the site at the time the NOP was issued. The City recently updated its zoning on a citywide basis to conform with the City's General Plan as updated in September 2019. The City's new citywide zoning regulations, called the Unified Development Code, became effective on October 22, 2022. The current

zoning for the Project Site is Suburban Neighborhood-8, which is intended to implement the General Plan designation applicable to the Project site (Suburban Neighborhood-High), which allows single-family residential development with a density of 4-8 units per acre. However, under the prior zoning, the southwest corner of the Project Site at Avenue 40 and Madison Street was zoned Village Core to allow commercial uses, with zoning of Residential Low on the remaining 330 acres. Consistent with this prior zoning, Alternative 3 includes a 120,000 square foot retail commercial center on approximately 15 acres on the corner of Avenue 40 and Madison Street, and development of the remaining 363 acres at the same density as the project, which would result in 1,500 units. The homes in this alternative would not be age-restricted.

Summary of Comparative Impacts

Alternative 3 would result in incrementally greater impacts when compared to the Project with respect to air quality, greenhouse gas emissions, schools, transportation, water service and supply, wastewater, and solid waste. Impacts related to Alternative 3 would be similar to agriculture, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. No significant impacts would be avoided or substantially reduced with Alternative 3.

Alternative 4—Residential Project with Golf Course

The Residential Project with Golf Course Alternative (Alternative 4) examines the impacts that would result from the development of a community similar to the existing Sun City Shadow Hills Communities located south and east of the Project Site. This alternative includes the development of a golf course on 80 acres of the Project Site, a Community Clubhouse with recreation facilities similar to the one included in the proposed Project on 26 acres, 1,500 age-restricted homes on 270 acres with 2 acres of the perimeter of the site dedicated as public right-of-way similar to the Project. The homes in this alternative would be age-restricted.

Summary of Comparative Impacts

Alternative 4 would result in incrementally greater impacts when compared to the Project with respect to transportation, water service and supply, wastewater, and solid waste. Impacts related to Alternative 4 would be similar to agriculture, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. No significant impacts would be avoided or substantially reduced with Alternative 4.

Alternative 5 – Reduced Density

The Reduced Density Alternative (Alternative 5) examines the impacts that would result from the development of the 378-acre project site at a lower density than the proposed Project, which has a gross density of 3 Dwelling Units per acre. This alternative assumes development with residential units at a

gross density of 3 Dwelling Units per acre. This density would result in 1,135 single-family homes being developed on the site. The homes in this alternative would be age restricted.

Summary of Comparative Impacts

Alternative 5 would result in an incremental reduction in air quality, greenhouse gas emissions, water service and supply, wastewater collection and treatment, and solid waste impacts during operation of the Project, but because the proposed Project's impacts are also mitigated to a level of less-than-significant, Alternative 5 would not avoid or substantially lessen any significant impacts of the Project. Impacts related to Alternative 5 would be similar to those for the Project related to agricultural resources, biological resources, cultural resources, geology and soils, hydrology and water quality, noise, recreation, and dry utilities. Finally, impacts related to land use and planning would be increased due to the conflict with the City's General Plan and California's current housing policies.

Alternative 6 – Roundabout Entry Intersection

Alternative 6 is an alternative roundabout design for the intersection on Avenue 40 at the main entrance of the Project Site. **Section 6.0, Figure 6.0-1: Alternative Roundabout Design - Avenue 40 Main Entrance Intersection** is a conceptual design for a roundabout intersection at this location. All other characteristics of the Project would remain the same with this alternative; the Project would include 1,500 residential units, a Community Clubhouse, and recreation/open space areas.

The roundabout design would include accommodations for pedestrians, bicyclists, golf carts, vehicles, and emergency vehicles. Vehicles would enter the roundabout by yielding to traffic approaching from the left; only right turns are permitted (see **Section 6.0, Figure 6.0-2: Alternative Roundabout Design – Vehicle Circulation**). Bicyclists and golf carts would have the option to travel within the roundabout or use the sidewalks and crosswalks surrounding the roundabout. Bicycle exit and entrance ramps are included to allow bicyclists to shift between the bicycle lane and sidewalk prior to and after departing the roundabout (see **Section 6.0, Figure 6.0-3: Alternative Roundabout Design – Bicycle and Golf Cart Circulation**). Pedestrians would use the existing sidewalks and new sidewalks on Avenue 40 and around the roundabout (see **Section 6.0, Figure 6.0-4: Alternative Roundabout Design – Pedestrian Circulation**). Crosswalks are proposed on all four legs of the roundabout. Safety features including vehicle deflection angles, yield signs/markers, and raised reflective pavement markers would be provided at the pedestrian crossings.

Summary of Comparative Impacts

Impacts related to Alternative 6 would be similar to agriculture, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emission, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. The roundabout would have sufficient capacity to accommodate projected traffic volumes at the intersection of Avenue 40 with the primary entrance to the Project and Camino San Gregorio. While Alternative 6 would minimize traffic

safety hazards in comparison to a standard intersection as this location, neither a standard intersection or a roundabout intersection would result in any significant traffic safety hazard impacts.

Environmentally Superior Alternative

Of the Alternatives considered, the No Project/No Development Alternative would be considered environmentally superior because it would result in the greatest incremental reduction of the overall level of impact when compared to the Project and eliminate the Project's significant impacts related to air quality and GHG emissions.

However, according to the State CEQA Guidelines, if the No Project/No Development Alternative is identified as the environmentally superior Alternative, the Draft EIR shall also identify an environmentally superior Alternative among the other Alternatives. Of the other Alternatives considered, Alternative 5, the Reduced Density Alternative, would be considered environmentally superior because it would result in the greatest incremental reduction of the overall level of impact when compared to the Project. Alternative 5 would reduce, but not avoid or reduce to a level of less than significant, any of the potentially significant impacts of the Project.

Overall, the Reduced Intensity Alternative would not meet the Project objectives to the same extent as the Project and because the proposed Project will not result in any significant impacts with mitigation, this alternative would not avoid or substantially lessen any significant impacts that would result from the proposed Project.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

During the scoping process conducted by the City of Indio as the first step in the preparation of this EIR, questions and concerns were expressed regarding the suitability of a roundabout intersection for the main entry to the Desert Retreat Community on Avenue 40. Questions were raised on how a roundabout intersection could accommodate pedestrians, bicycles, and golf carts safely with vehicle traffic on 40th Avenue. A roundabout is discussed as Alternative 6 in **Section 6.0 Alternatives** within this DEIR.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A summary of the potential environmental impacts of the Project and the measures identified to mitigate these impacts is provided below for each topic addressed in this Draft EIR. **Table 2.0-1: Summary of Project Impacts** summarizes the significance of the impacts of the Project based on the information and analysis in **Section 5.0: Environmental Impact Analysis** of this Draft EIR.

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Agriculture and Forestry Resources			
<i>Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use, or conversion of forestland to non-forest use?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Air Quality			
<i>Conflict with or obstruct implementation of the applicable air quality plan?</i>	Potentially Significant.	MM AQ-1: Construction contractors shall, at a minimum, use equipment that meets the USEPA's Final Tier 4 emissions standards for off-road diesel-powered construction equipment with 50 horsepower (hp) or greater, for all phases of construction activity, unless it can be demonstrated to the City with substantial evidence that such equipment is not available. To ensure that Final Tier 4 construction equipment or better shall be used during the proposed Project's construction, the City shall include this requirement in applicable bid documents, purchase orders, and contracts. The City shall also require periodic reporting and provision of written construction documents by construction contractor(s) and conduct regular inspections to the maximum extent feasible to ensure and enforce compliance. Where Final Tier 4 equipment is not available, the Project shall use Tier 3 equipment outfitted with Best Available Control Technology devices including a CARB certified Level 3 Diesel Particulate Filter (DPF). Level 3 DPF's are capable of achieving at least 85 percent	Less than Significant with Mitigation.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		reduction in particulate matter emissions. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Final Tier 4 emissions standards for a similarly sized engine, as defined by the CARB's regulations. Successful contractors must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. The Project representative will make available to the lead agency and SCAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, which will be used during construction. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be maintained on site at the time of mobilization for each applicable piece of construction equipment.	
<i>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?</i>	Potentially Significant.	Incorporation of MM AQ-1 .	Less than Significant with Mitigation.
<i>Expose sensitive receptors to substantial pollutant concentrations?</i>	Potentially Significant.	Incorporation of MM AQ-1 .	Less than Significant with Mitigation.
<i>Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Biological Resources			
<i>Have a substantial adverse effect, either directly or through habitat modifications, on any species identified</i>	Potentially Significant.	MM BIO-1: Pre-construction Burrowing Owl Clearance Survey	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<p><i>as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?</i></p>		<p>To avoid impacts to burrowing owls during construction, the following actions, which are consistent with the Burrowing Owl Mitigation prepared by the CVMSHCP on March 7, 2012, and approved and accepted by the USFWS, shall be taken:</p> <ol style="list-style-type: none"> 1. Two pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to any ground disturbance or vegetation removal activities planned between February 15 and June 15, the breeding season for burrowing owls, to determine the location of any active burrows on and within 550 yards of an approved Project Site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is on-site. 2. A biological monitor, with the authority to halt or redirect grading, shall be present whenever grading or construction vehicles are present and operating on the Project Site. The function of the monitor is to protect burrowing owls that arrive on or near the Project Site after the clearance survey and during the construction period. <p>As specified in Section 4.4 of the CVMSHCP, the applicable avoidance, minimization, and mitigation measures shall be implemented in the event an owl burrow is discovered. If either a nesting or escape burrow is occupied, owls shall be relocated pursuant to accepted Wildlife Agency protocols.</p> <p>MM BIO-2: Migratory Bird Treaty Act and Fish and Game Code Compliance.</p> <p>Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513 of the California Fish and Game Code prohibit the take,</p>	

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>possession, or destruction of birds, their nests, or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer should be expanded to 500 feet. A biological monitor should be present to delineate the boundaries of the buffer area and monitor the active nest to ensure that nesting behavior is not adversely affected by construction activities. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.</p>	
		<p>MM BIO-3: Coachella Valley Multiple Species Habitat Conservation Plan.</p>	
		<p>The CVMSHCP Conservation Fee shall be paid in accordance with the provisions of the Indio Municipal Code (Section 33.090).</p>	
		<p>Pre-Construction Burrowing Owl Clearance Survey.</p>	
		<p>To ensure burrowing owl remain absent from the project site, it is recommended that a burrowing owl pre-construction clearance survey be conducted prior to any ground disturbing activities.</p>	

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<i>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?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Cultural Resources			
<i>Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?</i>	Potentially Significant.	<p>MM CUL-1: SRI 15 Data Recovery.</p> <p>Prior to the implementation of mass grading, clearing, or grubbing, given the subsurface component of SRI 15 and the potential for human remains, consultation with Tribal entities concerning the Site should occur so that appropriate measures are taken to adequately and respectfully mitigate any adverse effects that the development may have on the Site.</p> <p>Because implementation of the Project as proposed would significantly impact the site, including the planned development of the SRI-15 area, avoidance of the SRI 15 site is not feasible. Therefore, an archaeological data recovery plan shall be drafted and implemented for the site in a manner consistent with established professional archaeological standards and in consultation with the Agua Caliente, Morongo, and Cabazon Tribes.</p> <p>Data recovery efforts will be led by a qualified principal archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology and monitored by tribal representatives. This archaeological data recovery plan will include the professional qualifications required of key staff and detail excavation methods as well as methods used to analyze recovered artifacts and samples. Implementation of the data recovery plan will reduce</p>	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>to an insignificant level potential Project effects on SRI 15.</p> <p>MM CUL-2: Archaeological Monitoring.</p> <p>Prior to the start of Project ground disturbance, including demolition and vegetation removal, a qualified principal archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology, shall be retained to prepare and implement a written Cultural Resource Monitoring and Treatment Plan (CRMTP) that is consistent with established professional archaeological standards and subject to the approval of the City. Implementation of the CRMTP will reduce to an insignificant level potential Project effects on known archaeological resources as well as on unanticipated archaeological resources that may be unearthed during construction, which would include potential prehistoric and historical-period discoveries. The CRMTP shall detail the pertinent historic context and anticipated research themes within which cultural resources in the Project Site can be treated and evaluated. The plan shall include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Project site, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements. The CRMTP shall include detailed methods to be taken during stop work situations, assessment of preservation in place or recovery of potential cultural deposits, and the process for evaluating resources for CRHR eligibility. The CRMTP shall also include a section describing the protocol in the event that unanticipated</p>	

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		human remains are discovered during Project construction.	
<i>Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?</i>	Potentially Significant.	Implementation of MM CUL-1 and MM CUL-2 will mitigate this potential impact.	Less than Significant.
<i>Disturb any human remains, including those interred outside of formal cemeteries?</i>	Potentially Significant.	<p>MM CUL-3: Human Remains.</p> <p>If human remains are identified during construction, all construction activities near the remains must cease immediately, and the area must be secured. The Riverside County Coroner's Office must be contacted immediately, in accordance with the California Health and Safety Code (HSC) Section 7050.5(b). If the determination is made by the coroner that the remains are those of a Native American, HSC 7050.5(c) requires that the coroner contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. The NAHC will then select a Most Likely Descendant and will coordinate with that individual regarding the treatment and final disposition (repatriation) of the human remains, according to the provisions of PRC 5097.98 and any other legal/regulatory requirements. Any encountered human remains will be treated with the proper dignity and respect.</p>	Less than Significant.
Energy			
<i>Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation?</i>	Less than Significant.	No mitigation measures are necessary	Less than Significant.
<i>Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Geology and Soils			
<p><i>Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</i></p> <ul style="list-style-type: none"> <i>i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42?</i> 	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<p><i>Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</i></p> <ul style="list-style-type: none"> <i>ii. strong seismic ground shaking?</i> 	Potentially Significant.	<p>MM GEO-1: Site Preparation and Remedial Grading.</p> <p>Prior to grading, the proposed structural improvement areas (i.e., all structural fill areas, pavement areas, buildings, etc.) of the site should be cleared of surface and subsurface obstructions, heavy vegetation and boulders. Roots and debris should be disposed of offsite. Septic Tanks or seepage pits, if encountered, should be abandoned in accordance with the County of Riverside Department of Health Services guidelines.</p> <p>The near surface soils/alluvium (including artificial fill/stockpiles) are potentially compressible in their present state and may settle under the surcharge of fills or foundation loading. As such, these materials should be removed (over-excavated) and re-compacted in all settlement-sensitive areas. We recommend that the upper 5 feet of alluvium or 3 feet below bottom of footings, whichever deeper, should be removed/over-excavated and recompacted prior to foundation construction or placement of any additional fill. The removal limit should be established by a 1:1 (horizontal: vertical) projection from the edge of fill soils supporting settlement-sensitive structures downward and outward to competent material</p>	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>identified by the geotechnical consultant. Removal will also include benching into competent material as the fills rise. Areas adjacent to existing structures or property limits may require special considerations and monitoring. Steeper temporary slopes in these areas may be considered.</p> <p>MM GEO-2: Structural Fills.</p> <p>The on-site soils are generally suitable for re-use as compacted fill provided they are free of debris and organic matter. Areas to receive structural fill and/or other surface improvements should be scarified to a minimum depth of 8 inches, conditioned to at least optimum moisture content, and recompacted. Fill soils should be placed at a minimum of 90 percent relative compaction (based on ASTM D1557) and near or above optimum moisture content. Placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of the geotechnical consultant. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in thickness.</p> <p>Fill slope keyways will be necessary at the toe of all fill slopes and cut slope replacement fills. Keyway schematics, including dimensions and subdrain recommendations, are provided in Appendix H. All keyways should be excavated into dense bedrock or dense alluvium as determined by the geotechnical engineer. The cut portions of all slope and keyway excavations should be geologically mapped and approved by a geologist prior to fill placement.</p> <p>Fills placed on slopes steeper than 5:1 (horizontal: vertical) should be benched into dense soils (see Appendix H for benching detail). Benching should be</p>	

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>of sufficient depth to remove all loose material. A minimum bench height of 2 feet into approved material should be maintained at all times.</p> <p>MM GEO-3: Shrinkage and Subsidence.</p> <p>The volume change of excavated onsite materials upon compaction is expected to vary with materials, volume of roots and deleterious materials, density, in situ moisture content, location, and compaction effort. The in place and compacted densities of soil materials vary and accurate overall determination of shrinkage and bulking cannot be made. Therefore, we recommend site grading include, if possible, a balance area or ability to adjust import quantities to accommodate some variation. Based on our experience with similar materials, we anticipate 10 to 15 percent shrinkage in the upper 5 feet of dune sand/alluvium.</p> <p>Subsidence due solely to scarification, moisture conditioning and recompaction of the exposed bottom of overexcavation, is expected to be on the order of 0.15 foot. This should be added to the above shrinkage value for the recompacted fill zone, to calculate overall subsidence.</p> <p>MM GEO-10: Vapor Retarder.</p> <p>It has been a standard of care to install a moisture retarder underneath all slabs where moisture condensation is undesirable. Moisture vapor retarders may retard but not totally eliminate moisture vapor movement from the underlying soils up through the slabs. Moisture vapor transmission may be additionally reduced by use of concrete additives. A qualified person/firm shall be engaged and consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction and make to avoid moisture vapor</p>	

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>transmission on various components of the structure as deemed appropriate. The slab subgrade soils should be well wetted prior to placing concrete.</p>	
		<p>MM GEO-12: Geochemical Characteristics.</p>	
		<p>Additional corrosion testing should be performed on representative finish grade soils at the completion of rough grading. Concrete foundations in contact with site soils should be designed in accordance with 2019 CBC. A qualified corrosion engineer shall be consulted to review the results of laboratory tests and coordinate additional testing if corrosion sensitive materials are to be used.</p>	
		<p>MM GEO-13: Preliminary Pavement Design.</p>	
		<p>The subgrade soils in the upper 6 inches should be properly compacted to at least 95 percent relative compaction (ASTM D1557) and should be moisture conditioned to near optimum and kept in this condition until the pavement section is constructed. Proof-rolling subgrade to identify localized areas of yielding subgrade (if any) should be performed prior to placement of aggregate base and under the observation of the geotechnical consultant.</p>	
		<p>Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density as determined by ASTM D1557. Base rock should conform to the “Standard Specifications for Public Works Construction” (green book) current edition or Caltrans Class 2 aggregate base having a minimum R-value of 78. Asphaltic concrete should be placed on compacted aggregate base and compacted to a minimum 95 percent relative compaction.</p>	

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<p><i>Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</i></p> <p style="padding-left: 40px;"><i>iii. Seismic-related ground failure, including liquefaction?</i></p>	<p>Potentially Significant.</p>	<p>MM GEO-8: Bearing and Lateral Pressures.</p> <p>Based on our analysis, the proposed residential/ and retail/commercial structures may be founded on conventional foundation systems based on the design parameters provided below. The proposed foundations and slabs should be designed in accordance with the structural consultants’ design, the minimum geotechnical recommendations presented herein, and the 2019 CBC. In utilizing the minimum geotechnical foundation recommendations, the structural consultant should design the foundation system to acceptable deflection criteria as determined by the architect. Foundation footings may be designed with the following geotechnical design parameters:</p> <p>Bearing Capacity: A net allowable bearing capacity of 2,000 pounds per square foot (psf), or a modulus of subgrade reaction of 150 pci may be used for design of footings founded entirely into compacted fill. The footings should extend a minimum of 12 inches below lowest adjacent grade. A minimum base width of 18 inches for continuous footings and a minimum bearing area of 3 square feet (1.75 ft by 1.75 ft) for pad foundations should be used. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g., seismic and wind).</p> <p>Passive Pressures: The passive earth pressure may be computed as an equivalent fluid having a density of 300 psf per foot of depth, to a maximum earth pressure of 3,000 pounds per square foot. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.</p> <p>MM GEO-9: Settlement.</p>	<p>Less than Significant.</p>

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>The project civil engineer, structural engineer, and architect should consider the potential effects of both static settlement and dynamic settlement presented below.</p> <p>Static Settlement: Most of the static settlement of onsite soils is expected to be immediate or within 30 days following fill placement. A differential static settlement of 0.5 inch over a 30-foot span may be considered for design purposes. Additional settlement will also occur in the future if sites grades are raised or due to specific or large footing/foundation loads.</p> <p>Dynamic Settlement: Based on our analysis, we estimate that total dynamic settlement is expected to be less than 5.0 inch. Due to relatively uniform alluvium, this settlement is expected to be global and differential settlement is expected to be minimal or less than 0.25 inches over a 40foot horizontal span.</p>	
<p><i>Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:</i></p> <p style="padding-left: 20px;"><i>iv. landslides?</i></p>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<p><i>Would the project result in substantial soil erosion or the loss of topsoil?</i></p>	Potentially Significant	Implementation of Mitigation Measures MM GEO-6, MM GEO-7, and MM GEO-11 will mitigate this impact.	Less than Significant.
<p><i>Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?</i></p>	Potentially Significant.	Implementation of Mitigation Measures MM GEO-1 through MM GEO-3, and MM GEO-13 will mitigate this impact.	Less than Significant.
<p><i>Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</i></p>	Potentially Significant.	<p>MM GEO-1: Paleontological Monitoring.</p> <p>A qualified paleontologist shall be retained prior to earthmoving activities associated with sediment</p>	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<p>greater than 5 feet below grade within the Project Site, in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan. The plan shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project Site. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the Project paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the City. The plan shall also include a description of the professional qualifications required of key staff, communication protocols to be followed during construction, fossil-recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens. Furthermore, a paleontological monitor should be on-site at all times during the original cutting of previously undisturbed deposits of high paleontological resource potential to inspect exposures for contained fossils. The paleontological monitor will work under the direction of a qualified professional paleontologist. If paleontological resources are discovered during construction, the monitor will have the authority to temporarily divert or direct ground-disturbing activities in the immediate vicinity around the find until they are assessed for scientific significance and recovered (i.e., collected).</p>	

Greenhouse Gas Emissions			
<i>Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<i>Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Hydrology and Water Quality			
<i>Would the project result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>Would the project result in substantially decreased groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>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 through the addition of impervious surfaces, in a manner which would:</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>i. Result in substantial erosion or siltation on- or off-site?</i>			
<i>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 through the addition of impervious surfaces, in a manner which would:</i>		No mitigation measures are necessary.	Less than Significant.
<i>ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</i>			
<i>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 through</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<p><i>the addition of impervious surfaces, in a manner which would:</i></p> <p style="padding-left: 40px;"><i>iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</i></p>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<p><i>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 through the addition of impervious surfaces, in a manner which would:</i></p> <p style="padding-left: 40px;"><i>iv. Impede or redirect flood flows?</i></p>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<p><i>Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?</i></p>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Land Use and Planning			
<p><i>Physically divide an established community?</i></p>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<p><i>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?</i></p>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Noise			
<p><i>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?</i></p>	Potentially Significant.	<p>MM NOI-1: The project applicant shall require that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels below the City’s established thresholds:</p> <ul style="list-style-type: none"> • Construction equipment shall be equipped with exhaust muffler systems consistent with FHWA guidance. 	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		<ul style="list-style-type: none"> • All equipment shall be properly maintained in accordance with manufacturers’ specifications to assure that no additional noise due to worn or improperly maintained parts is generated consistent with FHWA guidance. • Construction equipment shall have features that dampen metal surfaces and minimize metal-to-metal contact consistent with FHWA guidance. • When construction operations occur adjacent to off-site occupied residential areas, construction equipment staging areas and stationary noise sources shall be located as far from those nearby receptors as possible, prohibit idling equipment, notify adjacent residences in advance of construction work, and install temporary acoustic barriers or noise blankets around stationary construction noise sources. These barriers shall be made featuring weather-protected, sound-absorptive material on the construction-activity side of the noise barrier and must be installed in a location that completely blocks line-of-sight between the construction noise source and adjacent sensitive receptors. • Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses as feasible during all phases of project construction. • Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes. 	

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		Construction hours, allowable workdays, and the phone number of the job superintendent must be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent must investigate, take appropriate corrective action, and report the action taken to the reporting party. Contract specifications must be included in the proposed Project construction documents, which must be reviewed by the City prior to issuance of grading permits.	
<i>Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Population and Housing			
<i>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)?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Public Services			
Fire Protection and Emergency Medical Services			
<i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<u>Law Enforcement</u>			
<i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<u>Library Services</u>			
<i>Would the project result in capacity or service level problems, or result in substantial adverse physical impact associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios, or other performance objectives for library services?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Recreation			
<i>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?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>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?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Traffic and Transportation			
<i>Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

**TABLE 2.0-1
SUMMARY OF PROJECT IMPACTS**

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<i>Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>Result in inadequate emergency access?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
Tribal Cultural Resources			
<i>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</i>	Potentially Significant.	Implementation of Mitigation Measures MM CUL-1 through MM CUL-3 will mitigate this potential impact.	Less than Significant.
<i>i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)</i>	Potentially Significant.	Implementation of Mitigation Measures MM CUL-1 through MM CUL-3 will mitigate this potential impact.	Less than Significant.
<i>ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</i>	Potentially Significant.	Implementation of Mitigation Measures MM CUL-1 through MM CUL-3 will mitigate this potential impact.	Less than Significant.

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Utilities and Service Systems			
<u>Water Service and Supply</u>			
<i>Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<u>Wastewater Collection and Treatment</u>			
<i>Would the project require or result in the relocation or construction of new or expanded wastewater treatment, or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<i>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?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<u>Dry Utilities (Electricity, Natural Gas, and Telecommunications)</u>			
<i>Would the project require or result in the relocation or construction of new or expanded wastewater treatment, or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.
<u>Solid Waste</u>			
<i>Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

TABLE 2.0-1 SUMMARY OF PROJECT IMPACTS			
Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
<i>local infrastructure, or otherwise impair the attainment of solid waste reduction goals?</i>			
<i>Would the project comply with federal, State, and local management and reduction statues and regulations related to solid waste?</i>	Less than Significant.	No mitigation measures are necessary.	Less than Significant.

3.0 PROJECT DESCRIPTION

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) describes the location, objectives, and characteristics of the proposed Desert Retreat Specific Plan (“Desert Retreat Specific Plan” or “Project”) and the intended uses of this EIR, as required by the California Environmental Quality Act (CEQA) Guidelines.¹ A general description of the Project’s technical, economic, and environmental characteristics is provided in this section.

PROJECT LOCATION

The Desert Retreat Specific Plan area (Project Site) is located in the eastern portion of the Coachella Valley in the City of Indio (City) within Riverside County, California, as shown in **Figure 3.0-1: Regional Location Map**. The Project Site lies within what is described as Section 4 of Township 5 South, Range 7 East. The Project Site includes approximately 378-acres located in the northwest portion of the City. The Project Site includes Assessor’s Parcel Numbers (APNs) 691-110-002, 003, 004, 008, 011, 014, 021, 023, and 025. As illustrated on **Figure 3.0-2: Local Vicinity Map**, the Project Site is bounded by Avenue 38 to the north, Madison Street to the east, Avenue 40 to the south, and Jefferson Street to the west.

PROJECT OBJECTIVES

The CEQA Guidelines require an EIR to include a statement of the objectives of the project that address the underlying purpose. The objectives of the Desert Retreat Specific Plan are:

- Develop a thoughtfully planned and integrated master-planned residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles;
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system;
- Provide water, sewer, and drainage systems to adequately service the project;
- Promote quality development consistent with the goals and policies of the Indio General Plan; and

¹ California Code of Regulation. Title 14, Section 15000 et seq.

- Create a walkable community by incorporating pedestrian paths within the project and allowing for connections to public sidewalks/trails at each perimeter street.

PROJECT CHARACTERISTICS

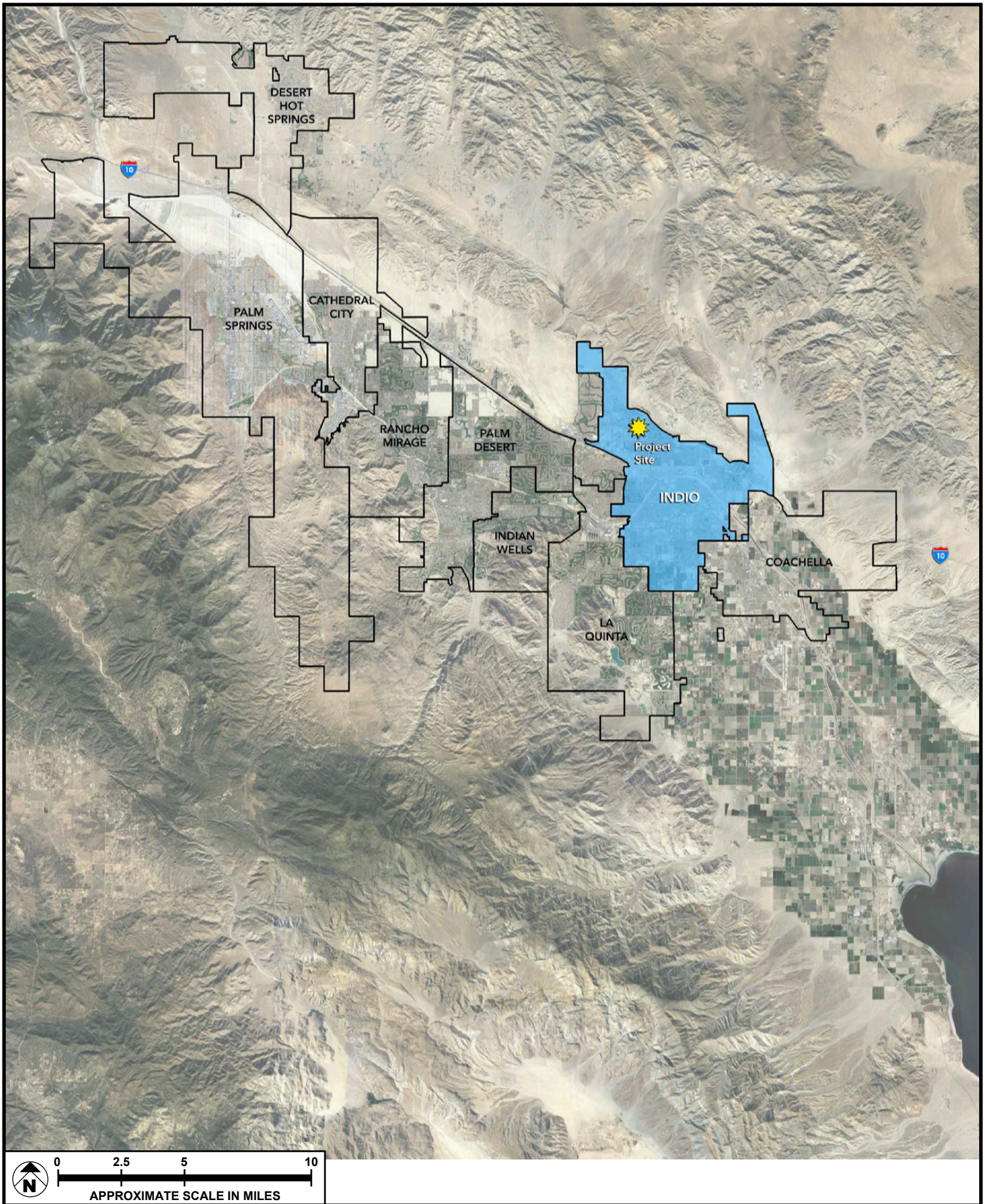
The Desert Retreat Specific Plan includes development standards, land use regulations, and programs to guide development of the Specific Plan area in a manner that is consistent with the City of Indio General Plan while also maintaining flexibility to respond to changing conditions that factor into any long-term development. This SP implements all applicable elements of the General Plan and includes detailed information about the site's master plan and infrastructure improvements such as circulation, water, sewer, grading, and drainage design.

The Desert Retreat Specific Plan is intended to guide future development and use of land within the Desert Retreat Specific Plan boundary, including the establishment of site-specific development standards and regulations. The Specific Plan is intended to ensure quality development consistent with the goals, objectives, and policies of the City of Indio General Plan. This Specific Plan defines the location, type, and amount of development allowed within the Specific Plan area consistent with the requirements for Specific Plans identified in State Planning and Land Use Law and City of Indio Municipal Code (IMC). The draft Desert Retreat Specific Plan is included in the Appendices to this Draft EIR as **Appendix B: Desert Retreat Specific Plan.**

Land Use

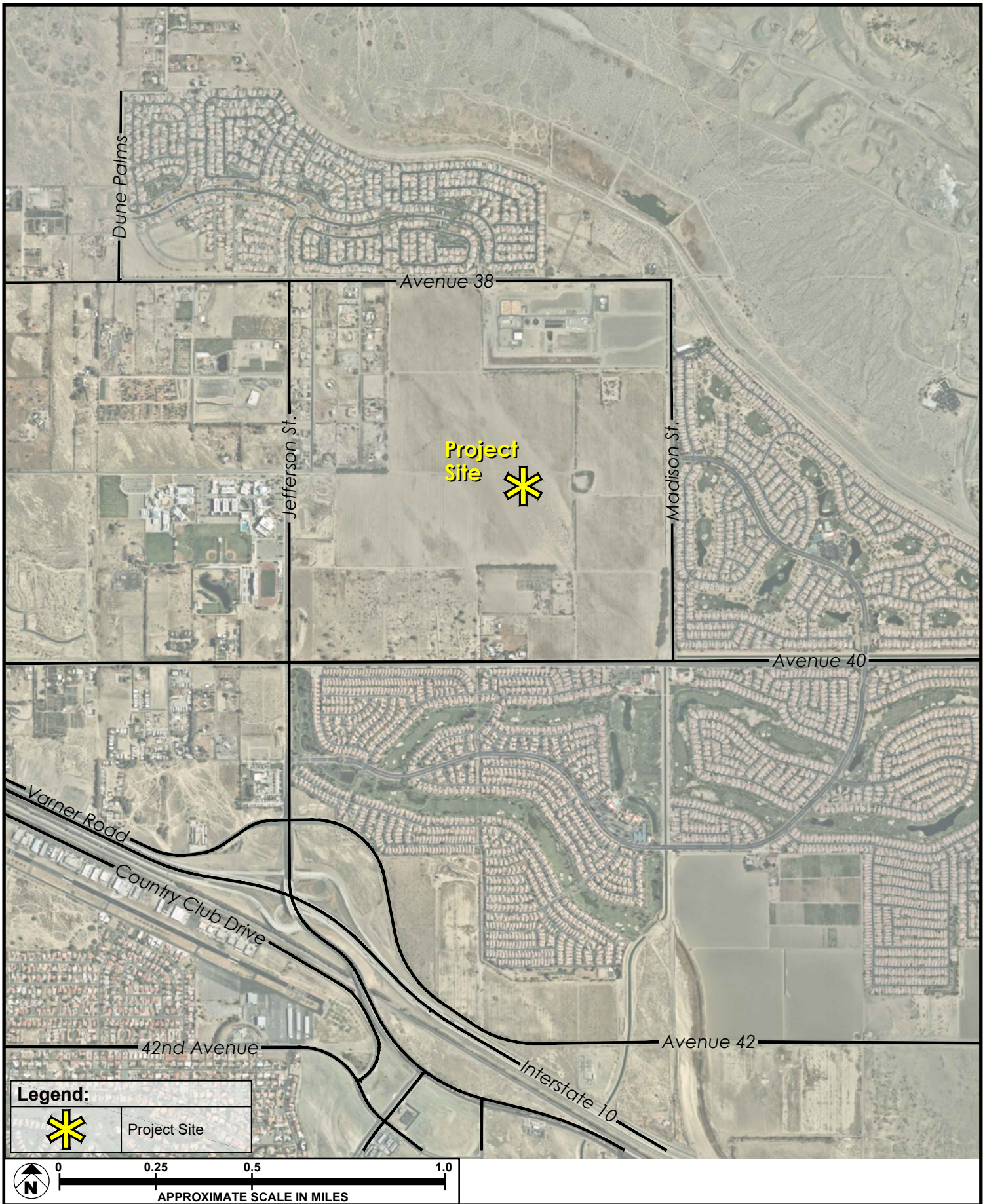
The Desert Retreat Specific Plan would allow development of an active adult community for residents aged 55 and above containing up to 1,500 residential units along with a community clubhouse and other recreational amenities on approximately 378 acres of land, as shown in **Figure 3.0-3: Conceptual Land Use Plan**. The average density of residential development would be 4.1 du/ac. This new community would be located immediately north and west of the existing Sun City Shadow Hills community. Sun City Shadow Hills is also an age-restricted community for residents aged 55 and above. The Project would include a community clubhouse in the center of the Project with outdoor resident amenities such as pickle ball courts, bocce ball courts, tennis courts, a swimming pool, and water features. A network of pedestrian open space corridors are integrated throughout the Project to facilitate walking.

The Indio General Plan 2040, adopted in September 2019, establishes the City's planned future pattern of land uses and the various infrastructure systems needed to effectively support those land uses. The Project Site is designated "Suburban Neighborhood" and is located within the "Northwest Indio Subarea" as identified in the General Plan. The Northwest Indio subarea is described in the General Plan as including a mix of older rural neighborhood development, newer suburban neighborhood development, agricultural uses, and undeveloped open space, as well as offering the potential for the development of Suburban Neighborhoods and Desert Estate Neighborhoods and resorts. The General Plan calls for new Suburban Neighborhoods abutting existing similar neighborhoods, transitioning to Desert Estate Neighborhoods abutting the surrounding open desert areas.



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-1



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-2

The Specific Plan is proposed to implement the Indio General Plan by defining development standards, land use regulations, and programs to guide development of a new suburban residential neighborhood adjacent to the existing Sun City Shadow Hills residential community. It serves as a link between the Indio General Plan and subsequent development within the Specific Plan area.

Land Uses within the Specific Plan

The proposed Specific Plan would permit development of an age-restricted single-family home community. A summary of the land uses defined in the Desert Retreat Specific Plan is presented in **Table 3.0-1: Desert Retreat Specific Plan—Land Use Plan Summary**. As shown, the residential development would occur on approximately 352 acres, approximately 72 acres of which would be dedicated to open space and pedestrian trails, with the Community Clubhouse and Recreation area located on approximately 26 acres. Two acres along the edges of the Specific Plan Area would be dedicated as public Right-of-Way (R.O.W.).

TABLE 3.0-1 DESERT RETREAT SPECIFIC PLAN—LAND USE PLAN SUMMARY			
Land Use	Acres	Max Units	Max Building SF
Residential	351.6 ^a	1,500	-
Perimeter R.O.W.	2.0	-	-
Clubhouse/Recreation	26.1	-	26,100
Total	377.7	1,500	26,100

Source: Desert Retreat Specific Plan. MSA Consulting Inc. August 2022.

Note: ^a 72.37 acres would be dedicated to open space and pedestrian trails.

Circulation Plan

Vehicular and pedestrian circulation systems are an important component of the Project. The Project Site has direct vehicular access to 40th Ave, Madison Steet, 38th Ave, and Jefferson Street. Vehicles would circulate through standard residential streets and Project entrances in compliance with City engineering and Fire Department design standards. The vehicular circulation system would consist of a central collector road with local residential streets serving individual neighborhoods. **Figure 3.0-4: Vehicle Circulation** illustrates the proposed vehicle circulation plan for the development. Key aspects of the circulation system include off-site street improvements, entries, pedestrian access, and public transportation, detailed below.

Off-Site Street Improvements

40th Ave exists along the southern edge of the Specific Plan area frontage and would reach a width of 100 feet from each end of the right of way (R.O.W.). Jefferson Street would also reach 100 feet from the end of each R.O.W. and exists along the western end of the property. Madison Street to the east would reach a width of 88 feet from each R.O.W, and Avenue 38 to the north would reach a width of 70 feet

from each R.O.W. per the Public Typical Street Sections. All improvements would occur within the Project Site and the frontages within. No off-site frontages are proposed for improvements.

Entries

Vehicular access to the site is proposed from gated entries on Avenue 40, Madison Street, and Avenue 38. The primary entry would occur on Avenue 40 near the corner with Madison Street. A standard signalized intersection that aligns with Camino San Gregoria is proposed. Entries would include landscaping, entry signage, and pedestrian walkway connections.

Pedestrian Access

The Project would feature pedestrian access throughout the development via an integrated system of pedestrian trails/paseos and connecting on-street sidewalks. The Project provides multiple pedestrian access points to connect the interior walkway system that allow residents free access to public sidewalks/trails on Avenue 40, Madison Street, Jefferson Street, 38th and 39th Avenue, as shown by **Figure 3.0-5: Pedestrian Circulation Plan**.

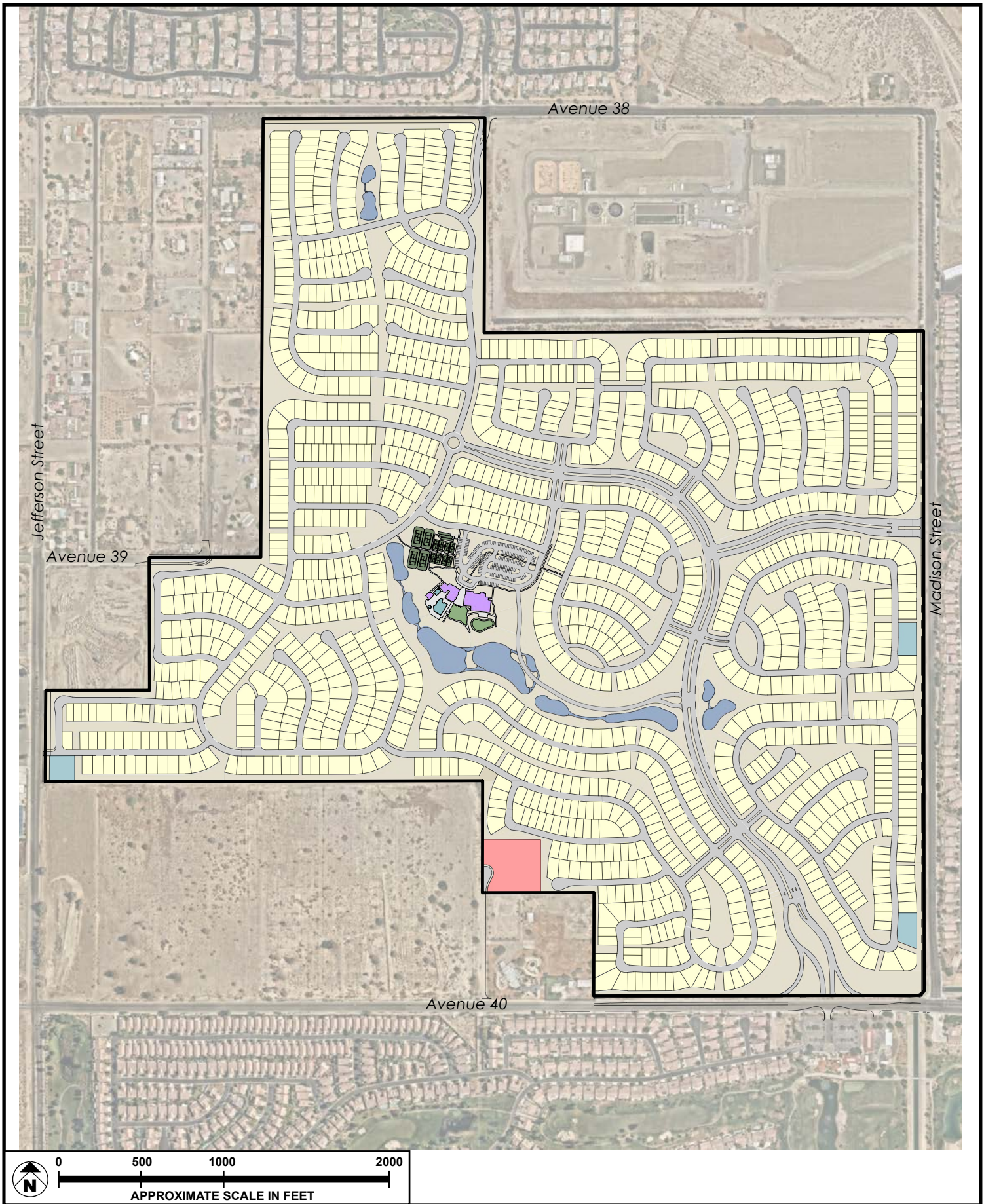
A description of each of the pedestrian components is found below:

Pedestrian Paseos: Pedestrian circulation would be provided by the pedestrian paseos, optional residential sidewalks, and low speed/low volume private streets in individual planning areas. The pedestrian paseos would provide residents with landscaped corridors that pass through residential common areas.

Residential Sidewalks: The residential sidewalks may be a desirable amenity in some locations, but are not required, except where indicated on the Specific Plan Pedestrian Circulation Plan (**Figure 3.0-5**). The Desert Retreat Specific Plan includes local street sections that allow for optional curb-adjacent sidewalks on local streets. However, sidewalks would be provided in higher traffic areas.

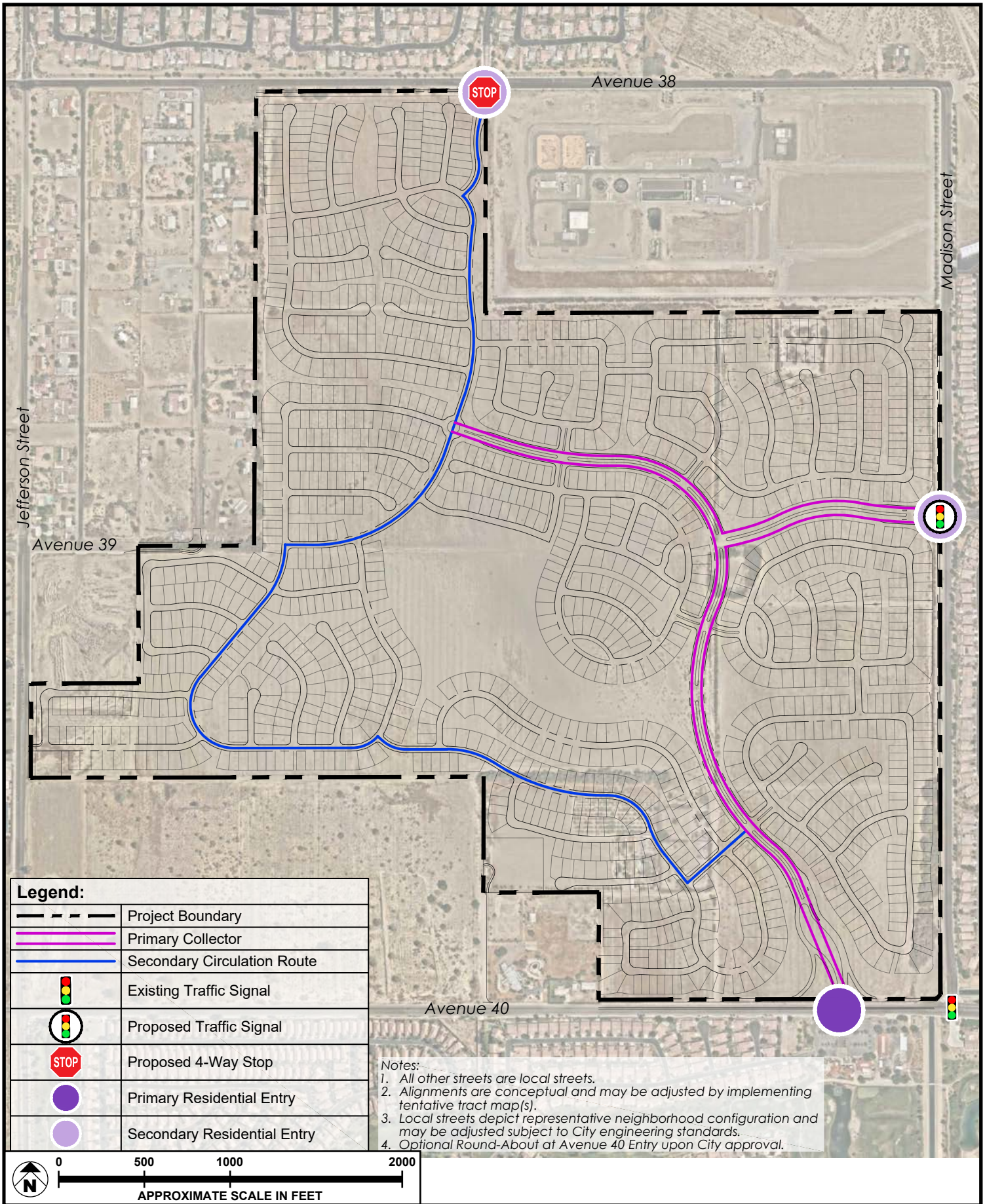
Public Transportation

Transit in the Project vicinity is provided by Sun Line Transit Agency (SLTA), which is the regional transit provider for Riverside County. Currently, SLTA operates a variety of bus routes in Indio. Routes 800, 801, 802, and 803 provide school shuttle service to Shadow Hills High School. Each bus operates once on weekday mornings before school starts and once on weekday evenings after school. Bus stops are located directly adjacent to the Project Site on the corner of Avenue 38 and Talavera Boulevard, and Avenue 40 and Madison Street. Access to the Project Site is very limited via transit during any other time of day, with the closest transit stop is a bus stop located near the Walmart Supercenter on the corner of Showcase.



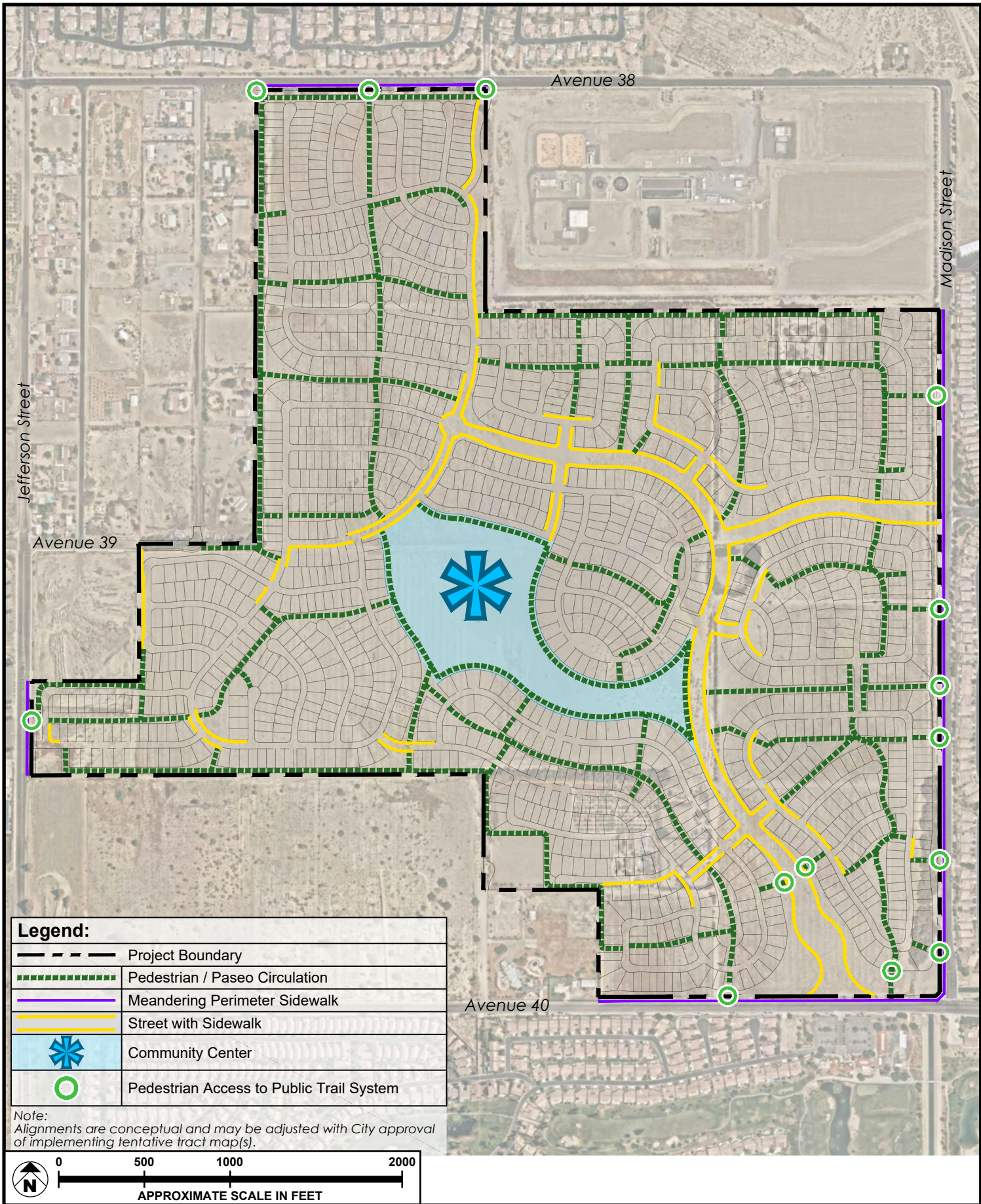
SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-3



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-4



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-5

Infrastructure and Utility Improvements

Infrastructure improvements would be constructed to support development of the Specific Plan area, including water, sanitary sewer, drainage and stormwater retention systems, and dry utility improvements. A brief summary of these improvements area as follows.

Water Conservation and Stormwater Management

The land planning approach and the related design of public facilities and utilities within the Project Site and its vicinity incorporate water conservation and stormwater management “best practices” that are sensitive to the desert environment sustainability needs of this area of the Coachella Valley. Project design within the Desert Retreat Specific Plan incorporates Low Impact Design (LID) standards and techniques, as describe further below.

Potable Water

The Coachella Valley Water District (CVWD) would provide water service for the Project Site. The Project’s water system design reflects consultation with and adherence to CVWD standards. A Water Supply Assessment was also prepared to demonstrate water availability (see **Appendix N**). The Water Supply Assessment has been reviewed and approved by CVWD.

Development within the Project Site would be served by a network of public lines that would connect to existing public CVWD water and sewer lines located at 3 points of connection off Avenue 38, Avenue 40, and near the corner of Avenue 39 and Jefferson. The residential properties within the Project Site would rely on potable water for both indoor and outdoor water use. The Project would connect at three locations to the public water system, as shown in **Figure 3.0-6: Conceptual Master Water Plan**. In addition, the Project is required to design and install an 18-inch pipeline on Avenue 38 from Primrose Lane easterly along the Project frontage to the Project entrance at the intersection of Avenue 38 and Talavera Boulevard. The CVWD would also require the Project to contribute its fair share to the construction of a new 7-million-gallon reservoir. Furthermore, the Project is required to provide three well sites to CVWD to use for water supply. One well site would be required to be placed in service with a well/pumping plant. In order to reduce the domestic water demand for the development, the Project would construct a private water well to serve as a backup water supply for the common area landscaping.

Non-Potable Water

The Project would use recycled water from CVWD Reclamation Plant No. 7, located immediately north of the Project Site on the corner of Avenue 38 and Madison Street, for the irrigation of parkways and open space. The nature of the CVWD recycled water system is to deliver water through a meter into a holding pond. From the holding pond a private recycled water system including pump station and distribution system would provide water to all the open space areas within the Project Site.

Sanitary Sewer

The Project Site would be provided with sanitary sewer service by CVWD.

Wastewater from the area the Project Site is located in is treated at CVWD Water Reclamation Plant (WRP-7), located immediately north of the Project Site on the corner of Avenue 38 and Madison Street.

Based on hydraulic modeling of the existing sewer system completed by CVWD, three options are available to provide sewer service to the Project Site: (1) improvements to existing sewer facilities; or (2) construction of new facilities in existing streets; or (3) new streets within the Project Site.

The first option would collect wastewater from the Project and convey it south through new and existing sewer lines to CVWD Lift Station 81-07. An extension of the existing sewer line in Jefferson Road south in Varner Road between Camino Santa Elise and Lift Station 81-07 would be built to redirect flows from existing sewer lines located immediately south of the Project to free up capacity in these lines to convey wastewater from the Project. This option would also require the upsizing of existing sewer lines located south of the Project Site and modifications to increase the capacity of Lift Station 81-07 from 2.2 MGD to 3.3 MGD.

The second option would convey wastewater north through the Project to the existing 27-inch gravity sewer pipeline in Avenue 38 to WRP-7. This existing gravity line has capacity to accommodate wastewater from the Project.

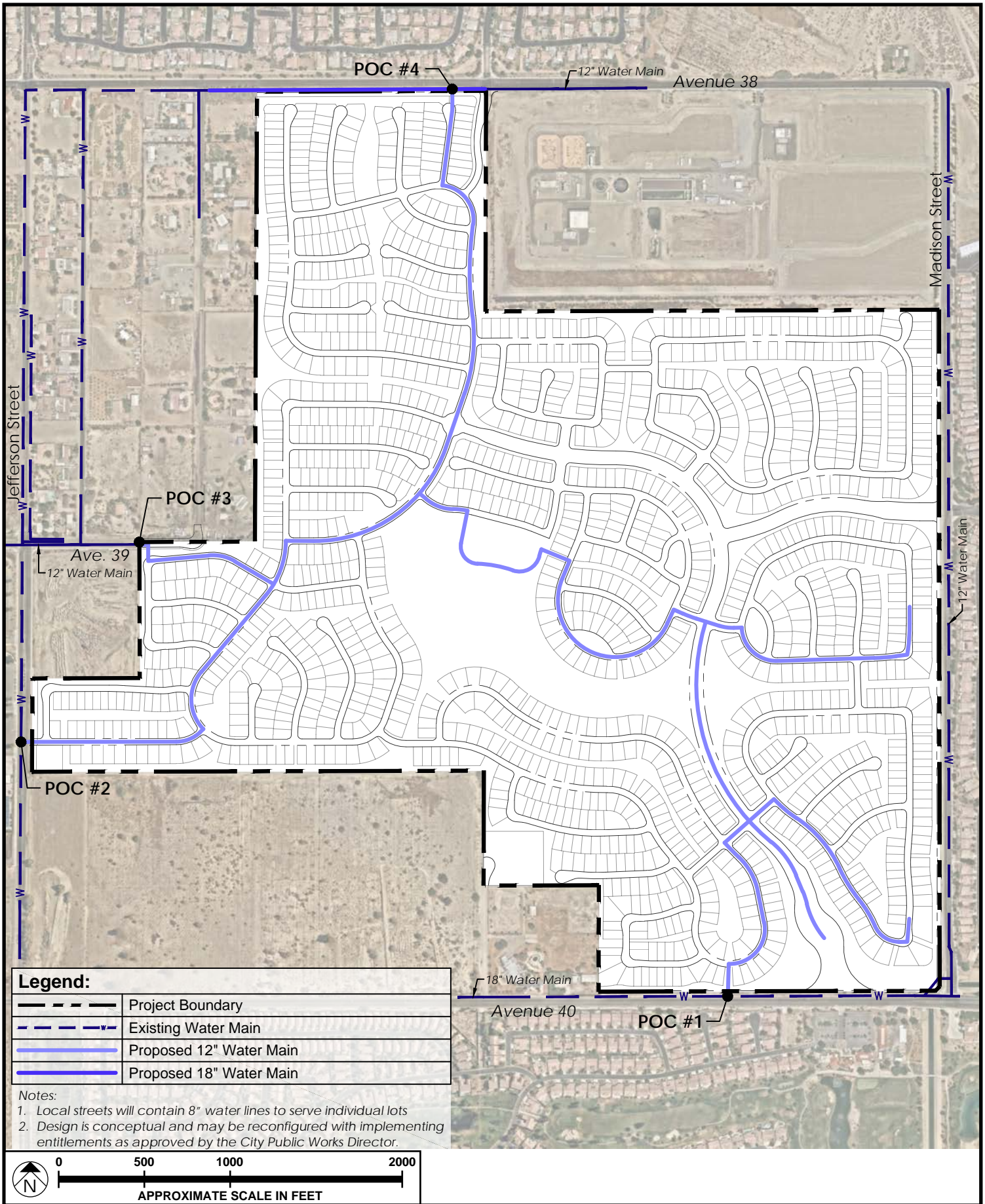
The third option would involve conveying a portion of the wastewater from the Project to the south to Lift Station 81-07 and a portion north to the existing gravity sewer in Avenue 38. This option would minimize the improvements needed to existing sewer lines located south of the Project Site and Lift Station 81-07.

All improvements related to wastewater service would be completed in accordance with City and CVWD standards which would preclude any interruptions in existing service of the surrounding properties.

Drainage

CVWD is the responsible agency for stormwater management in the vicinity of the Project Site. The Project Site is surrounded by existing development and paved roadways that would intercept and control most off-site stormwater flows after exiting the Project Site. The Project Site currently contains no existing drainage facilities. The City has identified North Jefferson Street as a potential area for drainage development and connection to surrounding facilities. The Jefferson North Storm Drain system would consist of a mainline storm drain, catch basins and laterals, and is located between Avenue 38 and Avenue 40, on Jefferson Street.² The current topography of the Project Site naturally contains a slight slope from the northeast to the southwest. The Project drainage design provides for the capture and storage of storm flow from the 100-year storm event for the Project vicinity.

2 City of Indio. *Public Works Master Plans. Master Drainage Plan Final Report (November 2019)*. Page 4-2 and 4-3. <https://www.indio.org/home/showpublisheddocument/2735/638006890667970000>. Accessed November 2022.



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-6

Conceptual Master Water Plan

Catch basins would intercept and convey storm flows through storm drainage pipes to catch basins, as shown in **Figure 3.0-7: Conceptual Grading and Drainage Plan**. The impervious surfaces constructed during development of the Project would produce additional stormwater runoff which would need to be retained. Retention basins would have sufficient storage to retain the flood volume from a 100-year storm event.

Solid Waste

Burrtec Waste Industries, Inc. (Burrtec) provides solid waste collection services to the City of Indio. Services include waste removal, recycling, and green waste disposal. The pick-up services provided by Burrtec include residential, commercial, roll-off services, construction and demolition, portable restrooms, special events, temporary bin rental, and concrete washout services. All of the active landfills currently located in Riverside County are rated as Class III landfills according to Title 27 of the California Code of Regulations (CCR).³ Such landfills only accept nonhazardous, municipal solid wastes. Riverside County operates a permanent Household Hazardous Waste (HHW) facility at 1100 Vella Road in Palm Springs, which accepts all HHW types.

Solid waste in the City is transported to the Indio/Coachella Transfer Station and then enters the Riverside County waste stream, is sorted, and sent to one of the Riverside County landfills in unincorporated Riverside County.⁴ The Coachella Valley Transfer Station currently has a permitted maximum tonnage of 1,100 tons per day (tpd) of solid waste and a maximum capacity of 12,685 cubic yards per day.⁵

Dry Utilities

Electric

Electric service in this portion of the City is provided by the Imperial Irrigation District (IID). IID will provide service to the initial phase of development from existing facilities. The additional power load for subsequent phases will require IID to construct a new substation with two 25 MVA (megavolt ampere) transformer banks. A 315 foot by 315-foot site is required for this new substation. Two alternative sites for this new substation have been identified. The first site is located east of Burr Street within the Specific Plan area and is currently under review with IID. The alternative site is located on the northwest corner of Burr Street and Avenue 40. Development of this substation on both of these sites is evaluated in this EIR. In addition, construction of transmission and distribution line extensions, distribution getaways and distribution feeders will be required to provide service to the Project. Improvements to other existing facilities located within existing public right-of-way may also be constructed to provide service to the Project.

3 California Code of Regulations. Division 2. Title 27. Chapter 3. Subchapter 2. Article 3. Section 20260.

4 City of Indio. *General Plan Update EIR*. Page 4.16-9.
<https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022.

5 CalRecycle. "SWIS Facility/Site Activity Details."
<https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2305?siteID=2426>. Accessed October 2022.

Natural Gas

The Southern California Gas Company (SoCalGas), a public utility, is the natural gas service provider to the City and the Project Site. Utilities are further described in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR.

Telecommunications

Telephone service in the City is provided by various companies. Verizon would be the telephone service provider for the Project Site. Spectrum provides local cable television service in the City. Utilities are further described in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR.

Public Services

Fire Services

Fire services provided to cities within Riverside County are provided through cooperative agreements with Riverside County Fire Department (RCFD). CAL FIRE provides service to RCFD through a cooperative agreement.⁶ The closest fire station, managed by RCFD, is Station No. 80, located at 81-025 Avenue 40, approximately 0.05 miles south of the Project Site. Please refer to **Section 5.12.1: Fire and Emergency Medical Services** of this Draft EIR for a detailed impact analysis.

Police Services

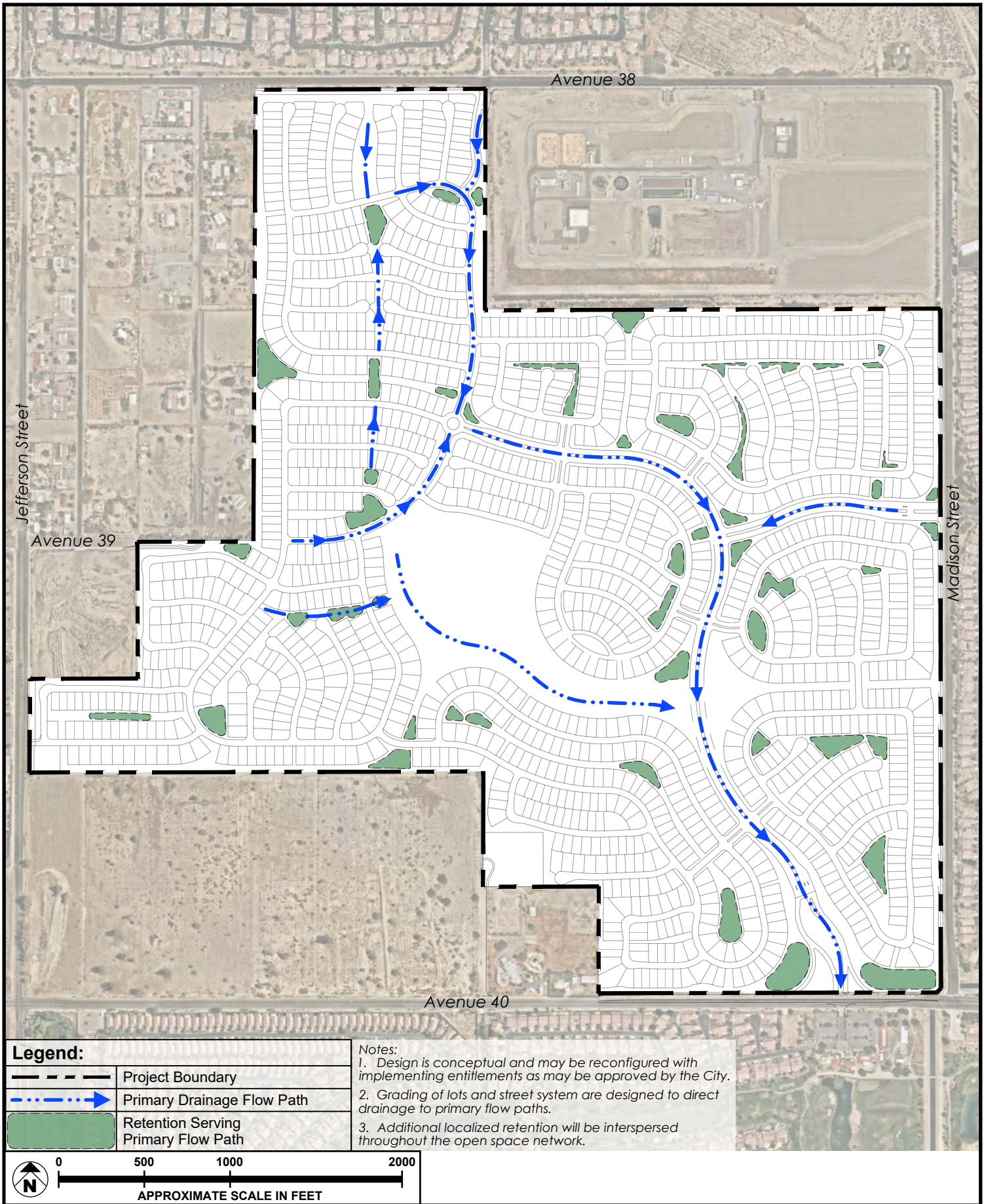
The Project Site is located within the service boundaries of the Indio Police Department. The Police Department provides emergency and non-emergency police response, routine police patrols, investigative services, traffic enforcement, and traffic investigation services. The station that serves as the headquarters for responding law enforcement officers to the City is located at 46800 Jackson Street, approximately 4.0 miles southeast of the Project Site. Please refer to **Section 5.12.2: Law Enforcement Services** of this Draft EIR for a detailed impact analysis.

Library Services

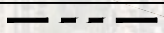
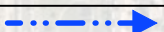
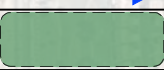
There are 38 library branches within the Riverside County Library System (RCLS) and two bookmobiles that serve a population of nearly 2.5 million residents within the County of Riverside.⁷ The Indio branch of the RCLS, located at 200 Civic Center Mall, provides service to the City. The Indio Library is approximately 3.5 miles southeast of the Project Site.

6 Cal Fire. "Cooperation Efforts." <https://www.fire.ca.gov/programs/fire-protection/cooperative-efforts/>. Accessed November 2022.

7 Riverside County Library System. "About Us." <http://rivlib.info/website/about-us-685>. Accessed April 2019,

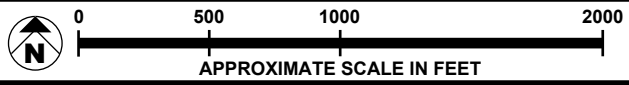


Legend:

	Project Boundary
	Primary Drainage Flow Path
	Retention Serving Primary Flow Path

Notes:

1. Design is conceptual and may be reconfigured with implementing entitlements as may be approved by the City.
2. Grading of lots and street system are designed to direct drainage to primary flow paths.
3. Additional localized retention will be interspersed throughout the open space network.



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-7

The Library offers information assistance, children’s programs, literacy tutoring, English as a Second Language classes, internet access, word processors, large print books, audio books, DVDs and videos, music CDs and cassettes, newspapers and magazines, Live Online Homework Help, tax forms, copiers, and downloadable audio books.⁸ Please refer to **Section 5.12.3: Library Services** of this Draft EIR for a detailed impact analysis.

Conceptual Grading

The existing topography within the Project Site is generally flat with slopes from northwest to southeast. Surface elevations currently range from 52 feet above sea level to a low of 38 feet above sea level.

As shown in **Figure 3.0-7**, grading would create building pads while intending to keep the earthwork balanced on site. Because the site is relatively level, grading design for the majority of the site would not deviate greatly from existing conditions with the exception of an elevated clubhouse and surrounding areas near the center of the project. Soil has been imported onto the site from a nearby CVWD flood control project and has been incorporated into the conceptual grading to facilitate the elevated clubhouse and adjacent pads. Grading would achieve positive surface flows and protect all structures and physical improvements from the 100-year storm through surface runoff into open retention basins above the finished surfaces. Soil erosion and water quality would be protected both during and after construction is completed. The 100-year storm water runoff volume in the new developed condition created by impervious surfaces (roofs, pavement) would be retained on site. The surface drainage would generally flow southeast across the Project Site via Project roadways and managed using retention facilities within open space paseos. Retention areas are shown in their conceptual locations at the low points for tributary areas of the Project in **Figure 3.0-7**.

Phasing

Development of the Specific Plan is intended to be developed by a single developer. Phasing is allowed so long as each phase accommodates the orderly extension of circulation, utilities, and infrastructure in accordance with the final conditions of approval for each Project and the City’s Public Works Department. The Project is expected to be built in 5 phases as shown in **Figure 3.0-8: Phasing Plan**.

Open Space and Parks

The Desert Retreat Specific Plan defines a combination of common and private open space areas for use by future residents. Key open space elements include:

Central Recreation Amenity: The Project is designed around a central 26.1- acre recreational center that may contain amenities such as a fitness center, a movement studio, locker rooms, a covered outdoor

8 Riverside County Library System. “Indio Branch.” https://riverside.networkofcare.org/aging/services/agency.aspx?pid=RIVERSIDECOUNTYLIBRARYSYSTEMIndioBranchLibraryLiteracyOffice_38_1_0. Accessed October 2022.

pool, billiards tables, a golf simulator, arts and crafts room, game room, multipurpose event lawn, sports courts, water features, outdoor kitchen, firepit seating ball room, catering kitchen, terrace, and indoor coffee bar with an outdoor social bar.

Paseos: Paseos provide an interconnected system of open spaces that link individual residences throughout the community with one another, the perimeter public sidewalk system, and the central clubhouse amenity. These provide separated amenity corridors that encourage walking and biking throughout the community.

These open space areas would be privately owned and maintained by the Project Homeowner's Association.

Conceptual Landscape Plan

The Desert Retreat Specific Plan includes guidelines for the treatment of streets, parkways, the edges of the community, entries, and open space areas. The landscape architectural theme for the Desert Retreat Community would play an important role in creating a community identity and continuity throughout the Project as it develops. The landscape architectural design would reflect a "desertscape" theme with supplemental ornamental accent landscaping, while providing a commitment to water conservation and low maintenance.

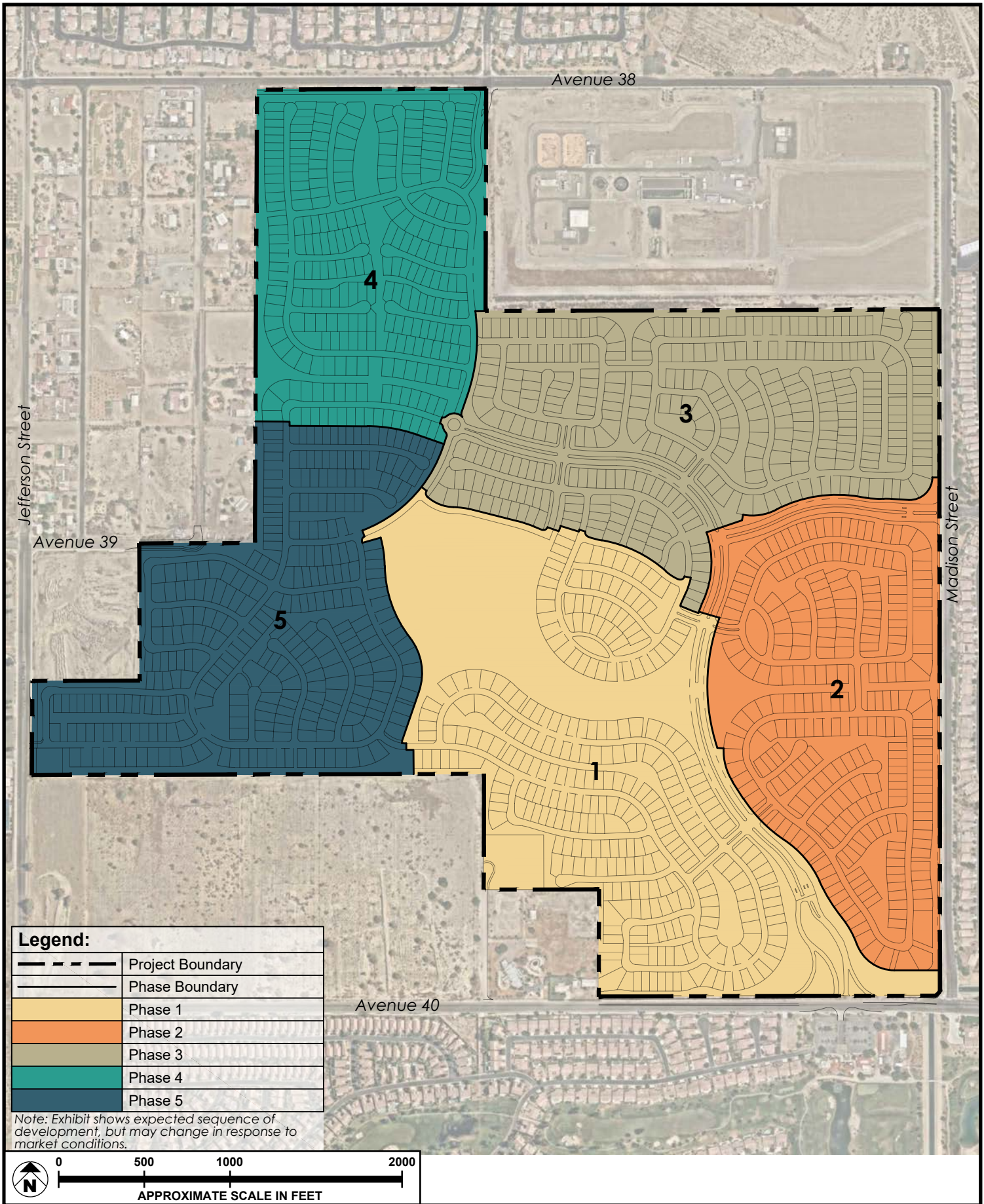
This would be accomplished with the proper layout of water efficient plant materials and a state-of-the-art irrigation system, including the use of recycled water from CVWD's adjacent wastewater treatment facility.

Plant materials would be arranged throughout the Project Site in both formal/geometric and informal/natural (organic) designs across distinct landscape planning zones with both contrasting and complementary design elements. Plant material selection would include ground covers, accent shrubs, functional turf palm trees, and evergreen trees. Flowering vines and espaliers may also be used throughout the Project.

The Specific Plan would also allow the use of water features to enhance public spaces and focal points along the paseos. Broad canopy trees would be utilized to provide shade for sidewalks and vehicles. Shrubs and accent plantings would be substantial to promote long term vigorous growth. Major planting types, such as parking lot shrubs, hedges, or streetscape plants should also reflect the accepted palette.

Project Public Entry Landscaping

The main entry gate would be provided at Avenue 40, with the secondary entry at Madison Street. The gates themselves would be automatically activated by a security system, with a manned guard house at the main entrance. Decorative wrought iron gates would be provided at both entries. The gates would be hung on masonry pilasters in keeping with the overall architectural theme and materiality.



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 3.0-8

The main entry gate at Avenue 40 would establish the initial theme and identification of the overall community. This entry would include a guard house, signage monumentation, landscaping, and community entry water feature. The community water feature and wall signs, as well as selected accent trees, would be lighted. The median would be planted with shrubs, ground cover, and accent planting. Other features may include landscaped berms, enhanced paving, accent trees, and shrubs.

The secondary entry gate at Madison Street would be provided with transponder-activated gates that would provide access for community residents only. Enhanced landscaping would be provided at this entry consistent with the overall community theme. Other features may include landscaped berms, paving, boulders, landscape sculpture elements, and a signature monument signage.

Perimeter Street Landscaping

Landscape setbacks along Avenue 38, Avenue 40, Madison Street, and Jefferson Street would reflect a drought tolerant, natural dry concept that would fit into the low desert environment. Plant material selection would consist of primarily desert flowering trees with palm tree accents, desert accent shrubs, and ground covers. Planting would be organic and free flowing. Decorative crushed rock and gravel would be used as a continuous inert groundcover along with boulder rock used as accents.

Single Family Residential Lots

All individual lot landscaping would comply with the following minimum landscape guidelines which, at the discretion of the homeowner's association, can be increased or made more stringent:

- The use of native or compatible drought tolerant species is strongly encouraged for all yard landscaping. Plants that consume higher amounts of water should be used sparingly and should be grouped together for efficient and proper irrigation.
- All landscape plantings would be maintained by a fully automatic underground watering system. The watering system valves would be brass and not plastic. The irrigation system must be equipped with an upstream pressure regulator. The drip system should also have a filter.
- The following plants shall not be used in any type of landscaping within the development:
 - Mulberry (*Morus alba*)
 - Olive/fruit (*Olea europaea*)
 - Tamarisk (*Tamarix*)
 - Italian Cyprus (*Cupressus sempervirens*)
 - Fountain Grass (*Pennisetum setaceum*)
- Front yards shall be provided with a minimum of one tree and a minimum of one shrub or plant for each 200 square feet, or fraction thereof, of the overall lot area. No less than one-half of the minimum amounts of required shrubs or plants are to be located in the front yard. No less than one-quarter of the minimum amounts of required shrubs or plants are to be located by the homeowner in the rear yard. All shrubs or plants must be at least a five-gallon container size. Trees would be no smaller than 24" box size. Ground cover would be required in all yards. Corner lots would be provided with two trees in the front yard and two trees on the side yard facing the street.

- The ground surfaces of all yards would be covered with inert or living materials, or any combination of both. For the purpose of these Design Guidelines, topsoil or decomposed granite (fines) would not be considered inert material. No artificially colored rock would be permitted as ground cover. Ground cover or inert material would not be used to spell out names, nicknames, names of states, city's athletic teams, slogan states, emblems, or any other communication.
- If turf is used, common Bermuda grass would not be allowed. There are several hybrid Bermudas available from which to choose. No more than 20% of the total square footage of the lot as described in the recorded tract map may be planted in turf, and only in the rear yard. Narrow or irregular shaped areas should be avoided because they are difficult to irrigate without encountering over-spray problems. Warm season grass such as hybrid Bermuda that goes dormant in winter would be over seeded with Winter Rye at the beginning of the fall season in order to maintain a consistent appearance. Perennial Rye seed is recommended. Owners may install turf that abuts a patio edge provided that such turf is not within four (4) feet from dwelling unit and two (2) feet from side and rear property lines or any wall. Where turf is adjacent to sidewalks, designs shall eliminate over-spray of the hardscape.
- The use of solid plastic sheeting or polyethylene over ground areas would not be permitted. If landscape fabric is used, it must allow the free flow of water, air, and gases to and from the soil.
- Fountains would be limited in height to 5 feet above the natural grade of the lot unless otherwise approved by the master homeowner's association. They would be of natural materials compatible with the overall architectural theme of the community. Fountains would be permitted in the front yards, street side yards, rear yards, and courtyards of all residential homes. Waterfall features, including waterfall spills for pools or spas, when constructed in the front, side, or rear yards, are limited to a maximum of 36 inches in height above the finished floor elevation of the lot. Waterfalls constructed in rear yards enclosed by 5-foot walls or higher can exceed this maximum height as long as they cannot be seen from common areas or neighboring lots.
- Statues and artifacts would not be allowed in the front yard excepting temporary statues, artifacts, and other holiday decorative landscaping items which may be allowed within a reasonable time period prior to and after the holiday season. In front enclosed courtyards, artifacts would be allowed with prior approval of the homeowner's association, so long as they are limited to 5-feet in height. Also, with prior approval of the homeowner's association for placement, statues and artifacts are allowed in the back yards of green belt lots so long as they do not exceed 36 inches in height measured from the finish floor elevation to the top of the statue or artifact.

Paseo Landscaping

The Paseos are designed as pedestrian scaled circulation corridors connecting neighborhoods to the internal destinations, such as the Central Recreation Amenity. Benches would be placed intermittently along Paseos with strategically placed shade trees to create rest stops with varying views of the San Jacinto Mountains or the natural desert setting. Landscaping in the Paseos would include native stone, boulders, seasonal wildflowers, native plant materials, California Fan Palms, and broad canopied trees.

Signage

Signs within residential areas will be restricted to high-quality materials and color palettes that complement the architecture of the surrounding environment. The design of wayfinding signs within the Project Site will be consistent in quality of design and implementation and convey the realization of an integrated signage system throughout the Project Site. Secondary entrance/wayfinding signs will be permitted as monument or wall-mounted signs at each of the other signalized intersection entering the

Project Site. Signage throughout the Project Site will comply with the City of Indio Sign Ordinance Section 150.101 for residential subdivisions.⁹

Lighting Design

Residential Development Lighting

Lighting fixtures within residential areas will be hooded and directed downward to minimize light, direct glare impacts, and spillage on neighboring properties, as well as reduce impacts on dark skies. Additional requirements of light fixtures would include illuminating areas and elements such as paths, entryways, and focal elements; shielding to avoid direct views of any unshielded light source from pedestrian or vehicular sight lines; shielding to direct light spillover away from adjacent residential areas with a 100 percent cut-off capability; and fixture dimming and cut-off capability as certified by the Dark Sky Association.

Roadway lighting throughout residential areas will be positioned to enhance safety at key points along streets, including intersections, paseo crossings, and other crosswalks. This lighting will be directed downward to minimize glare and spillover.

Wall and Fence Design

Walls and fences would be constructed in various settings throughout the community to provide privacy and security.

Community Walls

Walls are a major component in achieving a consistent overall community design theme. Wall and fence materials will be designed to be compatible with adjacent architectural and landscape elements. A strong cohesive appearance will be achieved through the use of a community wall design that is compatible with the architectural theme.

Perimeter and Community Walls

A gated community is proposed with a perimeter community wall. A solid decorative wall will be used at the perimeter of the Project Site as well as inside the Project adjacent to major streets and landscape areas. Tubular steel fencing may be constructed at the perimeter of the Project in place of the solid decorative wall where such fences are adjacent to open space or where necessary for drainage purposes.

⁹ City of Indio Municipal Code (IMC). Title XV. Chapter 150. Section 150.101.

Open Space Walls

Where view opportunities are adjacent to open space areas, a concrete curb would be used. Wrought iron or tubular steel fencing may be installed on top of this wall at the option of the individual owners, provided the overall height does not exceed 6 feet.

Interior Walls for Single Family Lots

Interior side and rear walls constructed around individual single-family lots will consist of masonry block, or low maintenance tubular steel fencing, with a minimum height of 5 feet above the finish floor elevation of the home. Interior rear walls located adjacent to an open space corridor will be a maximum of 3’ high (6’ high pool walls/fences for safety), measured from the highest finish grade. Interior side walls will be painted stucco or split fence, slump, sack finish or masonry block where they can be viewed from the open space areas.

Residential Development Standards and Design Guidelines

Development Standards

The proposed Specific Plan includes development standards for residential development. The maximum allowed lot coverage varies based on the type and size of home; up to 35 percent lot coverage would be permitted on Estate lots, up to 50 percent on Conventional residential lots, and up to 70 percent for Cluster residential areas.

The maximum height also varies based on the type and size of home. The maximum allowed height that would be for Estate lots is 20 feet while the maximum height allowed for Conventional lots would be 35 feet. Cluster residential development would have the highest allowable maximum building height, up to 50 feet.

Table 3.0-2: Residential Lot Standards contains the development standards for residential lots.

TABLE 3.0-2 RESIDENTIAL LOT STANDARDS	
Lot Standards	
Minimum Lot Area	4,400 ft
Minimum Lot Width	40 ft
Minimum Corner Lot Width	50 ft
Minimum Lot Depth	100 ft
Maximum Lot Coverage	65%
Setbacks	
Front to living area or side loaded garage	10 ft
Front to garage ¹	20 ft
Side	5 ft
Street Side	10 ft
Rear ²	15 ft

**TABLE 3.0-2
RESIDENTIAL LOT STANDARDS**

Lot Standards	
Accessory Structures	See IMC Section 159.689
Parking	
Single Family Residence	4 Spaces ³

Source: *Desert Retreat Specific Plan. MSA Consulting Inc. August 2022.*

Notes:

1. Measured from right of way.
2. Accessory structures may encroach into the rear yard up to 5' from rear property line.
3. 2 garage spaces plus 2 driveway spaces.

Building Design and Infrastructure

The building design standards within the Desert Retreat Specific Plan are proposed to promote the highest level of design quality and creativity in site planning and architectural design, while allowing for variation and flexibility. Homes would include a variety of design styles, range of colors, materials, building detailing, and building orientations consistent with the local desert environment based on durability and building code industry standards. The building design standards within the residential areas focus on massing, roof forms, and façades to maintain a consistent style throughout those areas.

Architectural styles will embrace the Indio environment by using materials that are long-lasting and a color palette that enhances the desert beauty. Homes and people-centric spaces will be designed at pedestrian scale and provide visual interest throughout the Specific Plan area.

Massing and Scale

Residential buildings within the community shall be single story structures and include single story elements and, as a general rule, will be designed with massing consistent with historic desert residential precedents, including recessed and prominent projected elements. The apparent mass of buildings should be reduced through the application of one or more of the following techniques:

- Utilize projections and recesses to provide shadow and relief at exterior walls and roof areas.
- Use simple roof forms; provide interest by jogging the rooflines, varying plate lines and roof heights. Simple roof forms are strongly encouraged to address Title 24 Energy Code requirements more effectively.
- Encourage indoor/outdoor relationship with shaded areas such as California Rooms as well as thoughtfully designed windows and doors that can enhance the indoor/outdoor connection.
- Windows and doors may be recessed to provide depth. Accent trim and color, divided window lights, and raised panels are examples of detailing that provide individuality and interest. Awnings are permitted if they are consistent with the overall architectural style of the building. All window and door details shall be consistent with the architectural style of the home.
- Private walls and fencing should be consistent with community wall themes and compatible with the architectural style of the buildings. Foreground plantings, vines, and espaliers are strongly encouraged to soften long stretches of walls and fencing.

- Mechanical equipment such as air conditioning and pool equipment, soft water tanks, gas meters, and electric meters shall be screened from public view but accessible for meter reading.
- Gutters and down spouts may be concealed or, if exposed, designed as a continuous architectural feature painted to match or contrast with the adjacent building surface. All flashing, sheet metal, vent stacks, and pipes shall be painted to match the adjacent building surface. Skylights should be designed as an integral part of the roof. Their location and color should relate to the building. Patio trellises, pergolas, and other exterior structures are encouraged to soften building masses, provide shade, and define spaces. As with main buildings, clean forms are encouraged utilizing materials and colors complementary to building architecture and Project design themes.
- Accessory structures shall be architecturally compatible with the primary structure.

Roof Forms

- Roofs should serve as major structural and architectural design elements, and a variety of roof types and colors are permitted. Roofs shall reflect the selected product type architectural concept and respond to the style, materials, and scale of the building. Roof overhangs are encouraged; they provide essential shade and are also aesthetically pleasing. Skylights may be installed provided that they are designed as an integral part of the roof form.
- A variety of roof type is encouraged, including hip roofs, gable roofs, and shed roofs. Roof pitches of 3:12 to 5:12 are permitted as well as flat roofs and parapets.
- Roof heights and planes should vary to create interplay between the roof and the walls of the structure.
- Acceptable roofing materials include concrete s-tile and concrete slate tile. Standing seam metal roofs may be used for accents.
- Unacceptable roofing materials include wood shakes, clay, and asphalt shingles.

Chimneys

Chimneys may be used as an architectural element. Caps on chimneys shall have low profiles; they should not be visually distracting. The form and materials shall reflect the architectural theme of the structure.

Doors and Windows

By varying the spacing, sizes, shapes, and locations of door and window openings in building facades, structures may be made more visually interesting and attractive. Windows and doors may be recessed into or projected out of structures to emphasize important areas of the building.

To further enhance the individual identity of each structure, pot shelves, window boxes, and built-in planters may be utilized if style appropriate. However, all such containers must be easily accessible for plant maintenance. Window frames, mullions, and doorframes shall be color coordinated with the rest of the building. Decorative wrought iron grills on windows may be used. Doors and windows will be required to complement the architectural style.

Garages

Garage setbacks may vary in order to enhance the streetscape scene. Garages will be required to be constructed of materials compatible with the architectural style of the structures.

Porches and Entryways

Entrances to buildings will be required to be clear and easily recognizable. Covered entrances, porches, and arcades are desirable because they serve to identify entrances and provide shelter from the sun and inclement weather. A protected entrance is not only functional but also produces a sense of privacy. Front entrances should be designed as significant architectural features.

Porches and entryways may be used to visually break up large, monolithic buildings into smaller units more in keeping with the desired human scale of the community. Porch and railing materials will be required to be consistent with the architectural style.

Mailboxes

Where common mailbox services are provided for any residential area, they will be required to be located close to the neighborhood entry in clusters throughout the neighborhood. The architectural character shall be similar to the residential architecture.

Materials and Colors

The primary goal of color and material palettes is to further enhance and define the architectural styles. Equally important is the composition of color and materials to achieve a harmonious and visually interesting community.

Selected colors and materials should be appropriate to the styles they represent and used to further differentiate from other styles.

- Use complementary building materials that promote a harmonious appearance and provide interest and variety consistent with the architectural styles.
- Where possible, use style-appropriate concrete roof tile blends; prohibit overly dramatic blends with extreme contrast.
- Material finishes should express permanence and quality.
- Avoid frequent changes in materials.
- Stucco is permitted as the primary material, with a preference for a finer finish. Heavy lace stucco finishes are prohibited.
- Architectural screens and accessory structures should be compatible in material, color, and texture to the primary buildings.
- Use high-quality, durable, low-maintenance materials.

Construction

Construction activities would last approximately 96 months beginning March 2024 and ending in March 2032. Construction of the Project is anticipated to involve movement of 450,000 cubic yards of earthwork, including soil from adjacent parcels as well as the North Indio Regional Flood Control Project. Grading activities are anticipated to occur five days per week for a total of approximately six months for mass grading and approximately two months per phase of precise grading.

INTENDED USES OF THIS EIR

Section 15124 (d) of the State CEQA Guidelines requires that an EIR project description include a list of permits and other approvals required to implement a proposed project, the agencies expected to use the EIR in their decision making, and related environmental review and consultation requirements. This Draft EIR assesses the potential environmental effects of the proposed Desert Retreat Specific Plan. This Draft EIR has been prepared to inform the City of Indio, any responsible and trustee agencies, and interested parties of the potential for significant environmental impacts and identify measures to mitigate any significant effects if feasible.

The CEQA Guidelines require an EIR to include a statement briefly describing the intended uses of the EIR, including a list of agencies expected to use the EIR in their decision making and the list of the permits and other approvals required to implement the project.

City of Indio

- Approval of the Desert Retreat Specific Plan;
- Approval of a Fugitive Dust Control Plan for construction activities;
- Approval of a Development Agreement; and
- Approval of a Tentative Tract Map and subsequent Design Review for the homes and community clubhouse buildings that would be allowed by the Specific Plan.

Coachella Valley Water District

- Preparation and approval of a Water Supply Assessment.
- Review and approval of the design and plans for the Project's domestic water, recycled water, and wastewater systems.

California Public Utilities Commission

- Issuance of a permit to construct in accordance with General Order No. 131-D related to the necessary modification, alteration, or addition to electric transmission/power/distribution line facilities, or of new, upgraded, or modified substations.
- Approval or certification related to any other applicable general order, rule, or regulation concerning utility modification, conveyance, or delivery.

Colorado Regional Water Quality Control Board

- Approval may include but are not limited to: (1) General Construction Stormwater Permit; (2) Standard Urban Stormwater Mitigation Plan; and (3) Submittal of a Recycled Water Report for the use of recycled water as a dust control measure for construction.
- Approval of a Water Quality Certification under Section 401 of the Clean Water Act.

South Coast Air Quality Management District

- Approval of a Fugitive Dust Control Plan for construction activities.

4.0 ENVIRONMENTAL SETTING

This section of the Draft Environmental Impact Report (Draft EIR) provides a general overview of the existing environmental setting of the Project Site including related projects that are considered in evaluating potential cumulative environmental impacts. The City of Indio (City), acting as Lead Agency for the proposed Desert Retreat Specific Plan Project (“Specific Plan Project” or “Project”), is preparing this Draft EIR in compliance with the provisions of the California Environmental Quality Act (CEQA). Section 15125 of the CEQA Guidelines requires the environmental impact analysis of a proposed project to include a description of the physical environmental conditions in the vicinity of a proposed project at the time the Notice of Preparation of an EIR is published. Section 15125 further states that this environmental setting will normally constitute the baseline physical conditions used to determine if an impact is significant. The purpose of describing and defining the environmental setting is to define the baseline physical conditions to determine the significance of the environmental impacts resulting from the Project.

REGIONAL ENVIRONMENTAL SETTING

Regional Location

The Project Site is located in the central part of the Coachella Valley, a low valley sandwiched between the Little San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. The valley is part of the Colorado Desert Geomorphic Province, an area that includes both sides of the lower Colorado River and the Coachella and Imperial Valleys of California. The Project Site consists of land located entirely within the City of Indio. The City is bounded by the unincorporated community of Bermuda Dunes to the northwest, La Quinta to the southwest, Coachella to the southeast, and unincorporated Riverside County to the north and northeast.

Regional Planning Considerations

Air Quality Management Plan

The Project Site is located within the Salton Sea Air Basin (SSAB), which spans the Coachella Valley portion of the County of Riverside and the entire County of Imperial. Air quality management of the Riverside County portion of the SSAB is overseen by the South Coast Air Quality Management District (SCAQMD). The Riverside County portion of the SSAB is bound by the San Jacinto Mountains to the west and spans eastward up to the Palo Verde Valley.

SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SSAB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. The Project would comply with applicable SCAQMD and air quality regulations. The Project’s consistency with the applicable air quality regulations is analyzed further in **Section 5.2: Air Quality** in this Draft EIR.

Coachella Valley PM10 State Implementation Plan

The SSAB is designated as a serious nonattainment area for particulate matter (PM) 10. The attainment date for serious nonattainment areas to achieve the PM10 National Ambient Air Quality Standards (NAAQS) was 2001. After years of demonstrating attainment of the PM10 standards prior to 1999, PM10 levels during the next three years (1999-2001) did not demonstrate attainment of the annual average PM10 NAAQS. Under the federal Clean Air Act, an area can request an extension of up to five years to attain the PM10 NAAQS if certain requirements are met, including creation of a State Implementation Plan (SIP) that demonstrates expeditious attainment of the standards. Thus, SCAQMD established additional strategies for the control of PM10 in the Coachella Valley PM10 State Implementation Plan (CVSIP), which was most recently updated in 2003. The 2003 CVSIP updates the emission inventories, emission budgets, and attainment modeling for the SSAB.

2016 Air Quality Management Plan

The most recent adopted comprehensive plan is the 2016 AQMP, adopted in March 2017, which incorporates substantial new scientific data primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. Additionally, the AQMP provides local guidance for the SIP, which provides the framework for air quality basins to achieve attainment of the State and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas.

The 2016 AQMP proposes attainment of the federal 24-hour particulate matter (PM) 2.5 standard by 2019 in the South Coast Air Basin through adoption of all feasible measures. The annual PM2.5 standard, however, cannot be met by 2021 by implementing all feasible measures due to prolonged drought conditions. Accordingly, as a “serious” nonattainment area, four more years are provided to attain the annual PM2.5 standard by 2025. The 2016 AQMP proposes attainment of the federal 2008 8-hour ozone standard by 2031; additionally, due to overlaps in emissions and control strategies, the 2016 AQMP includes revisions to the attainment demonstrations for the federal 1997 8-hour and 1979 1-hour ozone standards, which have proposed attainment years of 2023 and 2022, respectively.

The AQMP also includes an update on the current air quality status of the SSAB. The Coachella Valley Planning Area, the desert portion of Riverside County in the SSAB, is designated as a nonattainment area for the federal 2008 and 1997 8-hour ozone standards as well as the federal 2006 24-hour PM10 standard.

The 2016 AQMP does not include new modeling efforts for PM10; since the mid-1990s, peak 24-hour average PM10 concentrations have not exceeded the current federal standard (150 µg/m³) other than on days with windblown dust from natural events, which can be excluded upon USEPA concurrence. Regardless, the USEPA has requested additional ambient monitoring prior to consideration of re-designation. With further implementation of cleaner technologies, the 2016 AQMP anticipates the Coachella Valley Planning area to be in attainment of the federal 1997 8-hour ozone standard by the end

of 2018 and the 2008 8-hour ozone standard by 2023, as well as progress towards attainment of the 2015 8-hour ozone standard to be evaluated in a later AQMP.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

Regional Transportation Plan/Sustainable Communities Strategy

SCAG is the authorized regional agency for intergovernmental review of programs proposed for federal financial assistance and direct development activities. SCAG consists of local governments from Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial counties. SCAG is also responsible for the designated Regional Transportation Plan (RTP) including its Sustainable Communities Strategy (SCS) component pursuant to Senate Bill (SB) 375. The Sustainable Communities Strategy has been formulated to reduce greenhouse gas (GHG) emissions from passenger vehicles by 8 percent per capita by 2020 and by 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board (CARB).

The 2020-2045 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations. The Project's consistency with the applicable RTP/SCS policies is analyzed further in **Section 5.9: Land Use and Planning** of this Draft EIR.

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) is a sub-regional organization within SCAG. CVAG operates as the lead agency and as part of larger jurisdictional or regional teams within the Coachella Valley, made up of ten cities, Riverside County, and two Native American Indian tribes. CVAG represents member local governments and agencies throughout the Coachella Valley seeking cooperative sub-regional and regional planning, coordination, and technical assistance on issues of mutual concern. CVAG comprises several departments, including an Energy and Environmental Resources Department that monitors and implements both regional and local plans related to energy and air quality issues, waste management, water quality, habitat conservation planning, and trails issues.

LOCAL ENVIRONMENTAL SETTING

Location and Land Use

The Desert Retreat Specific Plan is proposed to implement the City of Indio General Plan for the 348-acre Project Site. The Project Site is bound by Avenue 38 on the north, Madison Street on the east, Avenue 40 on the south, and Jefferson Street on the west.

The Project Site is undeveloped and consists of approximately 618 acres of vacant land previously used for agricultural production within the Coachella Valley, located in the broader Colorado Desert Geomorphic Province of California. This province consists of numerous north-south trending mountain ranges, such as the San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west.

ENVIRONMENTAL RESOURCES AND INFRASTRUCTURE

Aesthetics

The Project Site is located in a portion of the Coachella Valley that is visually defined by the San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. The Project Site is primarily surrounded by an existing single-family residential neighborhood to the north; single-family residential and a golf course to the east and south; and Shadow Hills High School and single-family residential and vacant land to the west. Vacant, undeveloped parcels are interspersed with development to the northwest and west, with a larger undeveloped area located to the northeast, where the land is protected as part of the East Indio Hills Conservation Area.

There are no identified scenic vistas in the City.¹ Views of the San Jacinto and Santa Rosa Mountains to the west and south and the Little San Bernardino Mountains to the north are available from the site and surrounding area.² The proposed residential development would be similar in scale and character to the existing Sun City Shadow Hills Community located immediately east and south of the Project Site and would not obstruct available public views available from streets in the area to any greater degree than this existing development.

Views along and through the Project Site are predominantly defined by the natural and visual resources of the aforementioned mountain ranges. Views of these ranges to the north, south, and west of the Coachella Valley can be seen by viewers along all four roadways surrounding the Project Site. The topography of the Project Site and the surrounding area is generally flat and gently slopes from northwest to southeast, ranging from 52.2 feet above sea level to 32.3 feet above sea level, respectively. Please refer to Section 1: Aesthetics in the Initial Study of the environmental review for the Desert Retreat

1 City of Indio. *City of Indio General Plan Update EIR*. Page 4.1-6-4.1-7.

2 City of Indio. *City of Indio General Plan Update EIR*. Page 4.1-2.
https://www.indio.org/your_government/development_services/gp2040/environmental_impact_report.htm.

Specific Plan Project for further discussion of the existing visual character of the Project site and the surrounding area.

Air Quality and Greenhouse Gas Emissions

The Project Site lies within the SSAB, which spans the Coachella Valley portion of the County of Riverside and the entire County of Imperial. Air quality management of the Riverside County portion of the SSAB is overseen by the SCAQMD. The Riverside County portion of the SSAB is bound by the San Jacinto Mountains to the west and spans eastward up to the Palo Verde Valley. The SSAB and the adjacent Mojave Desert Air Basin were previously included in a single large air basin known as the Southeast Desert Air Basin. However, the CARB has subdivided this larger basin into the two separate air basins that are in place today.

The SSAB is classified as having a desert climate characterized by low precipitation, hot summers, mild winters, low humidity, and strong temperature inversions. The annual average temperature varies little throughout the SSAB, ranging from the low 40s to the high 100s, measured in degrees Fahrenheit (°F).

The Western Regional Climate Center (WRCC) maintains historical climate information for the western U.S., including the City of Palm Springs. The closest meteorological monitoring station to the Project Site is in the City of Palm Springs and is monitored by WRCC Station ID No. 046635. According to this Station, the average maximum temperature in the local vicinity is 108.2°F in July. The average minimum temperature is reported at 42.3°F in December and January.

In relation to other areas of southern California, the City of Indio has good air quality. In the past few decades, however, noticeable deterioration of air quality has occurred due to transport of pollutants from coastal air basins to the west, primarily ozone, and locally generated PM10 as a result of increased development and population growth, traffic, construction activity, and various site disturbances. Further description of the existing air quality in the Coachella Valley is provided in **Section 5.2: Air Quality** in this Draft EIR.

Biological Resources

The Project site has been directly and indirectly impacted by human activity. The Project site is bounded on all four sides by the major streets, residential development, and other uses described above. These existing conditions severely limit the movement of small terrestrial animals on, off, and through the Project site.

The majority of the Project Site consists of land disturbed by past agricultural use. These areas were routinely impacted by agricultural activities and now support early successional and non-native plant species.

The Project Site is relatively flat with no areas of significant topographic relief. The Project Site is not located within any regional wildlife corridors/linkages or CVMSHCP conservation areas and is isolated

from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of natural habitat within or connecting the Project Site to the CVMSHCP conservation areas.

Further description of the biological resource setting of the Project site is provided in **Section 5.3: Biological Resources** in this Draft EIR.

Cultural Resources

The Project Site is located in a portion of the Coachella Valley identified as having low to moderate prehistoric/ethnohistoric cultural resource sensitivity. The Coachella Valley consists of alternating lacustrine and fluvial sediments, termed the Lake Cahuilla beds, which have previously yielded fossil remains representing diverse freshwater diatoms, land plants, sponges, ostracods, mollusks, fish, and small terrestrial vertebrates. The Project Site consists of property previously used for agricultural production that is currently vacant.

A number of California Native American tribes have been historically associated with the broader Coachella Valley and Project area, as identified by the Native American Heritage Commission. The Project Site has never been developed and currently consists of relatively undisturbed desert lands. There are no known historical resources within the Project Site, nor did the cultural resources survey conducted for the Project Site identify any historical resources.

Pursuant to Government Code (GC) Section 65352.3 (Senate Bill [SB] 18) and PRC Section 21080.3.1 (Assembly Bill [AB] 52), the City has actively engaged with tribes historically associated with the Project area. Comments were received from the three tribes: the Agua Caliente Band of Cahuilla Indians, the Morongo Band of Mission Indians, and the Cabazon Band of Mission Indians (ABCI). Further description of the cultural resource setting of the Project site is provided in **Section 5.4: Cultural Resources** in this Draft EIR.

Energy

Energy in the State of California (State) is regulated by Title 24, Part 6, of California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. New standards went into effect in October 2005. Energy providers for electricity and natural gas in the City of Indio include the Imperial Irrigation District (IID) and the Southern California Gas Company (SoCalGas), respectively.

Geology and Soils

The Project Site is located within the Coachella Valley in the northern part of the Colorado Desert Geomorphic Province with elevations ranging from approximately 32 to 52 feet amsl, generally sloping from the northwest to the southeast. The Colorado Desert Geomorphic Province consists of numerous north-south trending mountain ranges, such as the San Bernardino Mountains to the north, the Santa Rosa

Mountains to the south, and the San Jacinto Mountains to the west. Additionally, this Province is bound on the east by the Colorado River, on the south by the Baja California border, on the north by the Transverse Ranges Province, on the northeast by the Mojave Desert Province, and on the west by the Peninsular Ranges Province.

The Coachella Valley is heavily prone to wind-blown sand erosion hazards as a result of the fierce winds that funnel through the steep mountain ranges. Areas at the base of the mountains are more sheltered from these hazards since the winds are not as strong. The regional tectonic subsidence along the Coachella Valley floor along with the uplift of adjacent mountains is responsible for the rapid deposition of poorly consolidated soils susceptible to consolidation and/or collapse.

Due to Southern California straddling the North American and Pacific plates, the region is located in an area where numerous strike-slip faults are present. While no Holocene-active faults are known to exist within the limits of the Project Site, there are active faults located within proximity of the Project Site that have the potential to create seismic hazards. The closest known active fault zone is the Coachella Segment of the San Andreas Fault Zone, located approximately 2.5 miles northwest of the Project Site.³ Other nearby active regional faults include the Indio Hills Fault Zone, Indio Hills Fault, Berdoo Canyon fault zone, Mecca Hills fault zone, and the Coachella Segment of the San Andreas Fault.⁴ In addition, there are abundant active or potentially active faults located in southern California that are capable of generating earthquakes that could affect the Indio area. These include the Mojave segment of the San Andreas fault, the many faults within the Mojave Desert located northeast of the San Bernardino Mountains, and numerous faults located in the vicinity of the Los Angeles basin and coastal southern California.

The Project Site is underlain by several Pleistocene- to Holocene-age alluvial deposits (Alluvial wash deposits [Qw], Young alluvial fan deposits [Qyf], Young alluvial valley deposits [Qya], and Young aeolian and dune deposits [Qye]).⁵ Quaternary alluvial deposits are generally assigned a high paleontological resource potential for their Pleistocene components and a low paleontological resource potential for their Holocene components. Because these deposits are undifferentiated by age within the Project Site, it can be assumed that Pleistocene-age deposits with a high paleontological resource potential could be encountered at depth but are likely too young to produce paleontological resources at the surface.

The potential for paleontological resources located within the Project Site was analyzed by SRI through a field survey. Based on the paleontological sensitivity study, the upper 5 feet of the sediments underlying the Project Site were designated as having low paleontological resource sensitivity, and any deposits discovered at greater than 5 feet in depth below grade were assigned to have high paleontological

3 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See **Appendix H**.

4 California Department of Conservation. "Fault Activity Map." <https://maps.conservation.ca.gov/cgs/fam/>. Accessed October 2022.

5 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See **Appendix F**.

resource sensitivity.⁶ On-site geologic features such as sand and soil types are not unique to the Project Site, instead being common in the area and extensive in the Coachella Valley.

Further description of the geologic setting of the Project site is provided in **Section 5.6: Geology and Soils** in this Draft EIR.

Hazards and Hazardous Materials

As an extension of the State Emergency Plan, the City of Indio maintains a Local Hazard Mitigation Plan (LHMP) as an integrated component of the General Plan, in coordination with Riverside County and other participating jurisdictions. Additionally, the City of Indio falls under the Riverside County Hazardous Waste Management Plan (HWMP), which serves to provide a framework for the management of the County's hazardous substances.

The Project Site is not identified to be on a list of hazardous materials sites as defined in Government Code Section 65962.5. According to the Phase I Environmental Site Assessment (ESA) and Phase I ESA Update that were prepared, the Project Site does not use or store any hazardous materials, nor does it exhibit the presence or likely presence of hazardous substances or petroleum products or an existing, past, or material threat of a release thereof.

Hydrology and Water Quality

The Project Site is within the boundaries of the Coachella Valley planning area of the Colorado River Basin (Region 7), which is under the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (CRWQCB). Region 7 covers approximately 13,000,000 acres (20,000 square miles) in the southeastern portion of California and includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. The Coachella Valley Planning Area consists of the Whitewater River Watershed and East Salton Sea Watershed. The Project Site is located within the Whitewater River Watershed (Watershed), which covers 1,920 square miles in the central portion of Region 7.

The Project Site contains no stream or river features. The northeast portion of the Project Site is located within a 100-year flood hazard area and the southwest portion of the Project Site is located within a 500-year flood hazard area.⁷

Land Use and Planning

Land uses in the vicinity of the Project Site primarily consist of existing development in all directions and undeveloped land to the northeast. Beyond the paved roads that surround the site, existing development consists largely of residential communities to the north, east, and south. In addition, the Project Site is

6 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See **Appendix F**.

7 City of Indio, *City of Indio General Plan 2040*. "Chapter 10. Safety." 10-8. Available at <https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed November 2022.

bounded to the northeast by the Coachella Valley Water District (CVWD) Water Recycling Plant 7 (WRP-7) and Shadow Hills High School to the west, beyond Jefferson Street.

The City's General Plan designates land area into one of three categories based on the level of change desired over the planning horizon: preserve, minor change; enhance, moderate change; and transformation, major change. The Project Site is located in an area designated for enhance, moderate change. Areas designated for enhance, moderate change are those where change is desired over the time horizon of the General Plan and where change will happen gradually over the entire horizon of the Plan and beyond.

The City's General Plan also includes a number of "place types" and "sub-types," which indicate the purpose and intended use for each parcel within the City, developed to provide clear, yet flexible, structure that adapts to changing economic conditions and community vision. Each place type provides direction on use, intensity, density, form, and character of desired development. The Project Site is located within an area designated for "Neighborhood" development, and a sub-area designated for "Suburban Neighborhood" development. The General Plan recommends that neighborhoods include a balanced mix of activity that includes a variety of dwellings, small, shops and workplaces, civic buildings, and parks within a walkable network of streets, such that complete, compact, and connected neighborhoods are created.

Refer to **Section 5.9: Land Use and Planning** in this Draft EIR for further information in existing land use conditions in the vicinity of the Project Site.

Noise

Noise in an urban setting is primarily generated by vehicular traffic but can also be generated by stationary sources of noise, such as mechanical equipment. Temperature, wind speed and direction, ground surfaces, vegetation, walls, and buildings affect noise transmission and perceived noise levels. Noise levels are measured in terms of the A-weighted decibel (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels to the frequency response of the human ear, with the normal range of human hearing extending from approximately 0 dBA to 140 dBA. The noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time-weighted, 24-hour average noise level based on the A-weighted decibel. Noise levels in the Project Site are influenced primarily by vehicular traffic on surrounding roadways, including Avenue 38, Avenue 40, Madison Street, and Jefferson Street. Existing noise sensitive land uses located near the Project Site include existing single-family residential to the north; single-family residential and a golf course to the east and south; and Shadow Hills High School and single-family residential to the west. Refer to **Section 5.10: Noise** in this Draft EIR for further information in existing noise conditions in the vicinity of the Project Site.

Population and Housing

According to the California Department of Finance (DOF), in 2022 the City of Indio had a population of 89,137, representing an increase of approximately 15 percent from its 2010 population of 76,036. The City of Indio's population accounted for approximately 4 percent of Riverside County's population in 2022. As of 2022, the City had a total of 35,276 housing units, approximately 82 percent of which (28,983) were occupied. The vacancy rate within the City was approximately 18 percent, with 6,293 units vacant, resulting from many residential units in the City serving as second or vacation homes for part-time residents. In 2021, the City had a median age of 42.9 years compared with those of Riverside County (36.6), the State (37.6), and the Nation (38.8).⁸ In addition, the proportion of seniors aged 65 and older was higher in 2021 (23.5 percent) than in 2010 (14.4 percent).

The Project's impacts on population and housing are discussed in **Section 5.11: Population and Housing** of this Draft EIR.

Public Services

Fire Protection and Emergency Medical Services

The Riverside County Fire Department (RCFD) provides fire protection and emergency services in cooperation with Cal Fire⁹ to the unincorporated areas of Riverside County and a number of partner cities under contract, including the City of Indio (City). RCFD also has cooperative, joint power agreements with other communities for fire services. The City entered into a cooperative agreement for fire-related services with the County of Riverside, through its Cooperative Fire Programs Fire Protection Reimbursement Agreement.¹⁰ This agreement ensures that the City will be provided with fire protection, disaster preparedness and response, fire prevention, rescue, hazardous materials mitigation, technical rescue response, medical emergency services, and public service assistance for the life of the agreement.

There are five RCFD stations within 4 miles of the Project Site. These stations are RCFD Stations No. 80, No. 81, No. 87 (located north of the Interstate 10 [I-10]), No. 86, and No. 88 (located south of I-10). Station No. 80, on the southwest corner of Avenue 40 and Madison Street at 81-025 Avenue 40, is located across Avenue 40 from the Project Site.

According to the City's General Plan, response times are based on the standards within the National Fire Protection Association (NFPA) 1710 and RCFD, which gives a maximum four (4) minute drive time for all

8 United States (US) Census Bureau. "Data - Tables. American Community Survey (ACS) (S0101)." https://data.census.gov/cedsci/table?q=median%20age&g=0100000US_0500000US06065_1600000US0636448&tid=ACSS1Y2010.S0101. Accessed November 2022.

9 Riverside County Fire Department. "Riverside County Fire Department Service Area." <https://www.rvcfire.org/about-us/service-area>, Accessed August 2022.

10 City of Indio. *City of Indio General Plan*. "Chapter 10: Safety." pg. 10-3. <https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed August 2022.

fire and medical emergency incidents.¹¹ The closest fire station to the Project Site, RCFD Station No. 80, is equipped with one paramedic fire engine, one paramedic ambulance, and one reserve ambulance, and currently staffs 10 firefighters.¹² In the event that Station No. 80 is responding to a fire and/or emergency call, Station No. 81 would respond to calls from the Project Site.

Please refer to **Section 5.12.1: Fire Protection and Emergency Medical Services**, for further discussion on the Project's potential impacts to fire and emergency medical services.

Law Enforcement

The City of Indio Police Department (Police Department) provides law enforcement services to the City. The Police Department provides emergency and non-emergency police response, routine police patrols, investigative services, traffic enforcement, and traffic investigation services. Police services are provided from the City's Police Headquarters located at 46800 Jackson Street in Indio. This station is approximately 4.0 miles southeast of the Project Site.

The Police Department is composed of the Field Services Division, the Support Services Division, and the Investigative Services Division.¹³ The Field Services Division is responsible for controlling crime and public safety issues, investigating traffic collisions, enforcing traffic violations, participating in community outreach efforts, operating the K-9 Teams, Code Enforcement, and the School Resource Officer (SOR) program. The support Services Division is responsible for supporting the Department's policing activities and initiatives. The Division consists of Police Investigations, the Communications Unit, Information Technology (IT), and Property and Evidence Unit.

The force currently consists of 81 sworn officers and 43 professional staff for a total of 124 full-time staff.¹⁴ As of 2022, the City's population was estimated at 89,137.¹⁵ This would provide a ratio of 0.91 officers per 1,000 residents, just below the commonly accepted ratio of one officer per 1,000 residents. The Communications Unit handles a high volume of both non-emergency and emergency phone calls 24 hours a day.¹⁶ Any 911 call placed from a landline phone, or from a cell phone within the city limits, is directed to the Communications Center located within the Indio Police Department. Police response times can vary significantly and are generally dependent upon various factors such as call type and the availability and location of the nearest patrol unit.

11 City of Indio. *City of Indio General Plan*. "Chapter 10: Safety." pg. 10-19.

<https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed August 2022.

12 City of Indio. "Fire Stations." https://www.indio.org/your_government/fire/fire_stations.htm. Accessed October 2022.

13 Indio Police Department. "Divisions." <https://www.indiopd.org/divisions>. Accessed October 2022.

14 Indio Police Department. "IPD Annual Reports (2019-2020)." <https://www.indiopd.org/about-ipd/ipd-annual-reports>. Accessed October 2022.

15 State of California Department of Finance (DOF). "E-5 Population and Housing Estimates 2020-2022." <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed September 2022.

16 City of Indio. "Indio Police Department." <https://www.indiopd.org/divisions/support-services-division/police-communications>. Accessed October 2022.

Please refer to **Section 5.13.2: Law Enforcement Services**, of this Draft EIR for further discussion of the Project's potential impacts to police protection services.

Libraries

There are 38 library branches within the Riverside County Library System (RCLS) and two bookmobiles that serve a population of nearly 2.5 million residents within the County of Riverside.¹⁷ Additionally, College of the Desert also has an on-campus library that is open to the public and affiliated with the RCLA. Only the Indio branch of the RCLS is in the vicinity of the Project, located at 200 Civic Center Mall. The Indio Library is approximately 3.5 miles southeast of the Project Site.

The Indio Public Library currently operates every day except Friday and Sunday with varying hours and houses more than 89,000 items.¹⁸ The library is also home to the office of the Family Literacy Coordinator, the office of the East Mobile Resource Van, and a Friend's of the Library bookstore. The Library offers information assistance, children's programs, literacy tutoring, English as a Second Language classes, internet access, word processors, large print books, audio books, DVDs and videos, music CDs and cassettes, newspapers and magazines, Live Online Homework Help, tax forms, copiers, and downloadable audio books.¹⁹

Please refer to **Section 5.12.3: Library Services**, of this Draft EIR for further discussion on the Project's potential impacts to the City's library services.

Recreation

The Riverside County Regional Park and Open-Space District (Riverside County Parks) operate county-wide programs that encourage and provide recreational opportunities, as well as to preserve and protect the region's natural, cultural, and historical characteristics. Riverside County Parks is broken down into three bureaus: Parks & Resources, Planning & Development, and Business Services.²⁰

The Parks & Recreation Bureau is responsible for providing an array of recreational activities for the County's residents, such as aquatic centers, parks and playgrounds, sport complexes, campgrounds, and special events. The Resources Bureau is dedicated to preserving the County's natural resources, ensuring that these resources are taken into account during planning and construction activities, and to promoting community outreach and educational opportunities. The Business Operations Bureau oversees the operation, administrative, and financials aspects of Riverside County Parks.

17 Riverside County Library System. "About Us." <http://rivlib.info/website/about-us-685>. Accessed November 2022.

18 Aaron Espinosa, Library Director. Rancho Mirage Public Library. Email correspondence dated April 29, 2019.

19 Riverside County Library System. "Indio Branch." https://riverside.networkofcare.org/aging/services/agency.aspx?pid=RIVERSIDECOUNTYLIBRARYSYSTEMIndioBranchLibraryLiteracyOffice_38_1_0. Accessed October 2022.

20 Riverside County Parks. "About Us." <https://www.rivcoparks.org/about-us/>. Accessed October 2022.

Joshua Tree National Park and Mount San Jacinto State Park are located within Riverside County. These parks also provide a range of recreational opportunities for the region, such as hiking trails, campgrounds, and fishing. Joshua Tree National Park lies to the northeast of the City with the Little San Bernardino Mountains running through the southwestern portion of the park. Joshua Tree National Park is operated and maintained by the National Park Service, which has the mission to revitalize and conserve the Nation's natural resources through securing properties. Mount San Jacinto State Park is located approximately 25 miles to the west of the City of Indio and encompasses the San Jacinto Mountains - the second highest mountain range in southern California.²¹

Locally, the City of Indio's Public Works Parks & Facilities Division is responsible for maintaining parks while the Desert Recreation District (DRD) is responsible for providing recreational facilities. The City provides recreational facilities for its residents and visitors, including golf courses, tennis and basketball courts, playgrounds, hiking trails, and campgrounds and recreational vehicle (RV) parks. According to the City's Parks, Recreation, and Open Space Element, the City maintains sixteen existing parks and owns several other properties which may be developed as parks in the future.²² The City also has numerous bikeways, trails, and golf cart travel access ways all throughout the City. These are implemented as part of the goals within the Parks, Recreation, and Open Space Element to meet the active and passive recreation needs of all residents and visitors of the City.

Please refer to **Section 5.13: Recreation** of this Draft EIR, for further discussion on the Project's potential impacts to parks and recreational facilities.

Traffic and Transportation

Regional Access

The Project Site is located within the Coachella Valley, which is separated from the Greater Los Angeles Area to the northwest by the San Geronio Pass, through which Interstate 10 (I-10) and the Union Pacific Railroad are the major transportation corridors. The Project Site is situated between the cities of La Quinta on the west and Coachella on the east.

Regional access in the Coachella Valley is provided by the Interstate 10 (I-10) Freeway, which provides access through the valley from the northwest to the southeast. I-10 extends from western Los Angeles County, through San Bernardino County and Riverside County to the east across Arizona.

Regional access to the Project Site is currently available from I-10 via the interchanges at Jefferson Street and Monroe Street. Motorists can access I-10 through the Jefferson Street Interchange, which includes six-lane overcrossing designed for traffic entering and exiting the I-10 freeway from both directions in a

21 California Department of Parks and Recreation. "Mount San Jacinto State Park." http://www.parks.ca.gov/?page_id=636. Accessed November 2022.

22 City of Indio. *City of Indio General Plan*. "Parks, Recreation, and Open Space Element." Page 7-2. <https://www.indio.org/home/showpublisheddocument/922/637874289450770000>. Accessed October 2022.

mixed diamond and cloverleaf interchange. Motorists can access I-10 in both directions through the Monroe Street Interchange, which includes an eight-lane overcrossing at I-10 and ramps configured in a tight diamond interchange.

Local Access

Local access to the site is provided by Avenue 38 to the north, Madison Street to the east, and Avenue 40 to the south from Jefferson Street and Monroe Street.

Avenue 38 is an east-west collector that extends from Del Webb Boulevard and Adams Street to Madison Street and forms the northern boundary of the Project site. Avenue 38 is generally one lane in each direction and has two lanes in the eastbound direction east of Talavera Boulevard. There are Class II bicycle lanes on Avenue 38 between Dune Palms Road and Madison Street.

Madison Street is a north-south collector that connects Avenue 38 and Avenue 40 and forms the eastern boundary of the Project site. Madison Street is a three-lane facility with two lanes in northbound direction and one lane in southbound direction. There are no bicycle facilities on Madison Street.

Avenue 40 is an east-west boulevard that extends from Fifties Way to Monroe Street and forms the southern boundary of the Project site. Avenue 40 is generally one lane in each direction west of Jefferson Street and two lanes in each direction east of Jefferson Street. There are Class II bicycle lanes on Avenue 40 west of Madison Street.

Jefferson Street is a north-south roadway located west of the Project site that provides direct access to I-10. Jefferson Street is classified as a collector north of Avenue 40 and as an arterial south of Avenue 40. Jefferson Street is generally one lane in each direction north of Sun City Boulevard, and two to three lanes in each direction south of Sun City Boulevard. The I-10/Jefferson Street interchange was recently reconstructed as a partial cloverleaf with three through lanes in each direction on the overcrossing. There are Class II bicycle lanes on the recently completed I-10/Jefferson Street interchange.

Monroe Street is north-south roadway located east of the Project site that provides direct access to I-10. Monroe Street is classified as a boulevard north of Avenue 42 and south of I-10 and as an arterial between Avenue 42 and I-10. Monroe Street is two lanes in each direction north of Villa Palazzo/Colby Way and south of Industrial Place/Avenue 44 and is generally one lane in each direction between Villa Palazzo/Colby Way and Industrial Place/Avenue 44. There are Class II bicycle lanes on Monroe Street north of Villa Palazzo/Colby Way.

Public Transportation

Public transit in the Project area is provided by Sun Line Transit Agency (SLTA), which is the regional transit provider for Riverside County. Currently, Sun Line Transit operates a variety of bus routes in Indio. The following routes serve the Project area:

- Routes 800, 801, 802, and 803: These routes provide school shuttle service to Shadow Hills High School. Each bus operates once on weekday mornings before school starts and once on weekday evenings after school. Bus stops are located directly adjacent to the Project site on the corner of Avenue 38 and Talavera Boulevard, and Avenue 40 and Madison Street.
- Route 8 (Desert Retreat Coachella Thermal/Mecca): This route operates weekdays between 5:35 AM and 11:00 PM and provides service between the Walmart Supercenter and the Mecca Health Clinic. The route operates with headways of approximately one hour. The closest bus stop to the Project site served by Route 8, is located near the Walmart Supercenter on the corner of Showcase Parkway and Monroe Street, approximately 2.6 miles away.

Bikeways

Caltrans standards are used to design bikeways by most jurisdictions throughout California, and the City of Indio adheres to Caltrans bikeway standards. There are four classifications for bicycle facilities: Class I, Class II, Class III, and Class IV bikeways.

Existing Class I Bikeways are located along:

- The City's General Plan proposes a Class I bicycle path on Jefferson Street between Avenue 38 and Varner Road.

Existing Class II Bikeways are located along:

- Avenue 38 between Dune Palms Road and Madison Street
- Avenue 40 between Jefferson Street and Monroe Street
- The City's General Plan identifies Class II bicycle lanes on Avenue 40 between Fifties Way and Monroe Street.

There are no Class III or Class IV bikeways in the Project area.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and multi-use trails. Sidewalks are provided along most roadways in Indio where land uses have been developed adjacent to the roadway. Within the study area, limited pedestrian facilities are provided. While many signalized intersections in the area have marked crosswalks, pedestrian signals, and push buttons, there are very few sidewalks adjacent to the Project site. Some of the sidewalks in the City provide access to pedestrians, as well as bicycles and golf carts.

Existing Traffic Conditions

Weekday morning (AM) and evening (PM) peak period intersection turning movement counts were conducted at the study intersections in February 2022 on a typical week. For the study intersections, the single hour with the highest traffic volumes during each count period was identified. The AM peak hour in the Project study area is generally 7:30 to 8:30 AM and the PM peak hour is generally 4:00 to 5:00 PM. The AM peak hour in the Project study area occurred on Wednesday between 7:45 AM to 8:45 AM and the

PM peak hour occurred on Wednesday between 3:15 PM to 4:15 PM, coinciding with the pick-up/drop-off period at the nearby schools.

A full discussion of the Project's existing traffic conditions and potential impacts is presented in **Section 5.14: Transportation and Traffic** of this Draft EIR.

Utilities and Service Systems

Water Service and Supply

Coachella Valley Water District (CVWD) is the Public Water System (PWS) for the area in which the Project is located. CVWD provides service for domestic water, irrigation water, sanitation sewer collection, wastewater reclamation and recycling, imported water, stormwater management, agricultural drainage and flood control and water conservation. Some of the services provided by CVWD include the following:

- CVWD provides domestic water for approximately 107,000 homes and business in the Coachella Valley. The distribution system includes 60 reservoirs, 1,993 miles of pipelines and 96 active wells.
- CVWD began recharging the groundwater basin in the Upper Valley in 1919, first with local water and later with imported water.
- Sanitation Services were provided by CVWD in 1968, when it acquired the Palm Desert Country Club Water Reclamation Plant and domestic water system. Currently there are five water reclamation plants (WRP) providing wastewater treatment as well as recycled water supply in the CVWD service area.

The Coachella Valley is dependent on groundwater as a source of supply. The demand for groundwater has historically exceeded the natural recharge of the groundwater basin. Therefore, imported water is used to recharge the acquirer and reduce groundwater overdraft. As supply and demand changes, the amount of groundwater in storage changes to make up the difference between the demand and the supply. Other than Canal water, recycled wastewater and desalinated agricultural drain water, all water delivered to the end users is obtained from the groundwater basin. The groundwater basin has the capacity of approximately 29.8 million AF. It acts as a very large reservoir. It is capable of meeting the water demands of the Coachella Valley for extended periods.

As discussed in the 2010 CVWMP Update, CVWD has many programs to maximize the water resources available to it including recharge of its Colorado River and SWP supplies, recycled wastewater, desalinated agricultural drain water, conversion of groundwater uses to Canal water and conservation including tiered water rates, a landscaping ordinance, outreach, and education. The 2010 CVWMP Update and CVWD replenishment assessment programs establish a comprehensive and managed effort to eliminate the overdraft. The effectiveness of the District's programs is clear and shows that there will be a steady increase in water in storage with limited disruption to this pattern through 2045.

The Water Supply Assessment/Water Supply Verification for the Proposed Desert Retreat (WSA/WSV) further indicates that CVWD will be able to meet current and future urban water demand needs through

groundwater pumping, recharge with Colorado River water, and distribution of treated Colorado River water during normal, single dry, and multiple dry years over at least the next 20 years.

Wastewater Service System

The Project Site is located in the City of Indio (City) within the service boundary of CVWD for wastewater conveyance and treatment. Two water recycling plants (WRPs) serve the City: one is owned by Valley Sanitary District, and one is owned by CVWD.²³ VSD's WRP treats approximately 96 percent of Indio's wastewater and CVWD's WRP treats the remainder. The CVWD plant that serves the City (WRP-7) is located at Avenue 38 and Madison Street, adjacent to the northeast corner of the Project Site. The WRP-7 includes a 5.0 MGD secondary treatment facility with current tertiary treatment capacity of 2.5 MGD (2,800 AFY). The off-site pumping capacity of the WRP-7 recycled water pump is approximately 4,500 gpm. In the summer, peak demands exceed the pumping capacity of 4,000 gpm, which typically serves Sun City and 500 gpm which serves the community of Shadow Hills. The recycled water distribution systems serve a total of 20 customer accounts through 31 miles of pressurized distribution pipelines. This plant is a tertiary treatment facility and the effluent produced is recycled for non-potable uses for CVWD customers. WRP-7 generates recycled water for irrigation of golf courses and large landscaped areas. There are currently no wastewater services provided by the City.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Electricity

Southern California Edison (SCE) is the primary electric service provider to the City and its sphere of influence (SOI), with the Imperial Irrigation District (IID) providing electric service to a portion thereof. These providers are regulated by the California Public Utilities Commission (CPUC) and Federal Energy Regulatory Commission (FERC). Electrical power is generated by a combined system of gas and coal production, oil, hydroelectricity, nuclear production, solar and wind technology, and energy purchase.

The Project Site is within the IID service area. The IID energy service territory covers 6,471 square miles, including all of Imperial County along with parts of Riverside and San Diego counties.²⁴ The IID planning area used approximately 3,516 GWh of electricity in 2021, of which 1,906 GWh were derived from residential uses²⁵ The CEC estimates that electricity consumption within the IID planning area will be approximately 4,320 GWh annually by 2032, when the Project would be fully built out.²⁶

23 City of Indio. *City of Indio General Plan Update EIR*. "Chapter 4.16, Utilities and Service Systems." Page 4.16-8.

24 Imperial Irrigation District (IID). "Energy Service Maps." <https://www.iid.com/energy/about-iid-energy/energy-service-maps>. Accessed November 2022.

25 IID. *Imperial Irrigation District 2021 Annual Report*. <https://www.iid.com/about-iid/mission-vision-statements/annual-reports>. Accessed November 2022.

26 California Energy Commission (CEC). "California Energy Demand Forecast, 2021-2035." <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report/2021-1>. Accessed November 2022.

The nearest transmission line to the Project Site includes an east/west 92 kilovolt (kV) line along 40th Avenue, directly south of the Project Site.²⁷ No electricity is currently used on the vacant Project Site.

Natural Gas

According to the California Energy Commission (CEC), approximately one third of energy consumed in California is natural gas. Nearly 45 percent of the natural gas burned in California was used for electricity generation, and much of the remainder consumed in the residential (21 percent), industrial (25 percent) and commercial (9 percent) sectors.²⁸

SoCalGas, a publicly regulated utility, is the natural gas service provider to the City. SoCalGas has regional and local distribution lines in the City and its SOI and provides natural gas for space heating, domestic and commercial hot water, cooking, and air conditioning applications. Together, CPUC and FERC regulate SoCalGas' natural gas distribution and conveyance activities. FERC is an independent federal agency that regulates the interstate transmission of electricity, natural gas, and oil. CPUC regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering, and billing. The availability of natural gas services is dependent upon current conditions of gas supply and regulatory policies. The Project Site is within the SoCalGas service area and is currently undeveloped with no natural gas facilities onsite.

Telecommunications

Telecommunications services in the City are provided by various companies. Spectrum provides cable service, and telephone service, formerly provided by Verizon, is now offered by Frontier Communications. Both companies are regulated by CPUC. A wide array of products and telecommunication services for residential and commercial uses are offered by both, including internet services, wireless services, television technology utilizing digital fiber optic technology, and satellite technology. A variety of telecommunication facilities exist along roadways surrounding the Project Site, described as follows. The Project Site would be served by Spectrum for cable television access and Frontier for telephone access. The Site is currently undeveloped with no telecommunications facilities onsite.

Solid Waste Services

The Riverside County Waste Management Department (RCWMD) is responsible for the efficient and effective landfill disposal of non-hazardous county waste. To accomplish this, the RCWMD operates five active landfills and administers a contract agreement for waste disposal at the private El Sobrante

27 CEC. "Electric Infrastructure Map." <https://cecgis-caenergy.opendata.arcgis.com/app/ad8323410d9b47c1b1a9f751d62fe495>. Accessed December 2022.

28 CEC. "Supply and Demand of Natural Gas in California." <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>. Accessed December 2022.

Landfill.²⁹ RCWMD also oversees several transfer station leases, as well as a number of recycling and other special waste diversion programs. All of the active landfills currently located in Riverside County are rated as Class III landfills according to Title 27 of the California Code of Regulations (CCR).³⁰ Such landfills only accept nonhazardous, municipal solid waste. Franchise solid waste collection companies are granted permits to collect commercial and residential waste throughout unincorporated Riverside County under Riverside County's general operating authority. In addition, County landfills accept waste collected in incorporated cities. Within these cities, solid waste is either collected by the city as a municipal service or collected by private firms pursuant to a franchise agreement with the city.

Solid waste not dumped directly in a landfill is deposited temporarily in several transfer stations throughout Riverside County. The region's transfer stations play a vital role in accommodating throughput to landfills, serving as collection and separation points for solid waste and recyclables. Transfer stations also help reduce traffic congestion and provide flexibility for hauling waste to distant landfills or processing plants outside the region when appropriate. Solid waste services are provided to the City of Indio (City) by Burrtec Waste and Recycling Services (Burrtec).³¹ Under Burrtec's contract with the City, solid waste generated by the Project would be transported to the Indio/Coachella Transfer Station and then enter the Riverside County waste stream and be sent to one of the Riverside County landfills in unincorporated Riverside County.³²

The Project Site is currently vacant and undeveloped and does not generate solid waste.

Please refer to **Section 5.16: Utilities and Service Systems** of this Draft EIR for further discussion on the Project's potential impacts to existing infrastructure.

D. RELATED PROJECTS

Section 15130 of the CEQA Guidelines requires that cumulative impacts are to be discussed where they are considered significant. It further states that the discussion of cumulative impacts reflects the severity of the impacts and their likelihood of occurrence, but that it does not need to be in as great level of detail as provided for the Project alone. Cumulative impacts are defined by Section 15355 to be "...two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

29 Riverside County Department of Waste Resources. "Landfills and Transfer Stations." <https://www.rcwaste.org/disposal/hours>. Accessed October 2022.

30 California Code of Regulations. Division 2. Title 27. Chapter 3. Subchapter 2. Article 3. Section 20260.

31 City of Indio. Public Works Department. "Solid Waste." <https://www.indio.org/departments/public-works-department/solid-waste-trash>. Accessed October 2022.

32 City of Indio. *City of Indio General Plan Update EIR*. Page 4.16-9. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022.

The CEQA Guidelines (Section 15130 (b)(1)) further state that the information utilized in an analysis of cumulative impacts should come from one of two sources, either:

- A. A list of past, present, and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- B. A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses contained in the various topical sections of **Section 5.0: Environmental Impact Analysis**, considers related projects in the City of Indio. In addition, the projections in the City's General Plan are used in the assessment of potential cumulative impacts, where appropriate, as well as related projects in proximate jurisdictions such as the City of Coachella, City of La Quinta, and Riverside County.

The analysis of traffic impacts in the study area was conducted using the Riverside County Transportation Model (RIVCOM), a complex system that analyzes road networks, socioeconomic data, driver behavior, and goods movement to predict where traffic flow will occur as the population grows and changes. For use in the Traffic Study included as Appendix K of this Draft EIR, the RIVCOM was updated to be consistent with 2020 SCAG RTP/SCS growth projections with updated 2018 base year and 2045 future year land use assumptions. Per the 2020 SCAG RTP/SCS financially constrained project list, the only near-term (2030) roadway improvement assumed at study intersections was the completion of the I-10/Monroe Street interchange.

The following pending and approved development projects in a 2-mile radius of the Project Site are not included in RIVCOM assumptions and were added to the future year socioeconomic dataset for future forecasting:

Approved projects within a 2-mile radius of the Project site include:

- 267 Multi-family residential units on the west corner of Jefferson Street and Avenue 42;
- 2,056 square foot (sq. ft.) Starbucks with drive-through on the east corner of Jefferson Street and Avenue 42;
- Chandi Square, which includes 5,500 sq. ft. of convenience market, 3,600 sq. ft. of carwash, 10 fuel pump stations, 2,600 sq. ft. of high-turnover sit-down restaurant, and 2,400 sq. ft. of fast-food restaurant with drive-through on the southwest corner of Jefferson Street and Varner Road; and
- 3,820 sq. ft. Raising Canes with drive-through on the southeast corner of Monroe Street and Buena Vista Avenue.

5.1 AGRICULTURAL AND FORESTRY RESOURCES

INTRODUCTION

This section describes the existing agricultural resources located on and immediately surrounding the Desert Retreat Specific Plan Project (Project) area and the potential for significant environmental impacts to agricultural resources.

Prior to the preparation of this Draft EIR, an Initial Study (included in **Appendix A** of this Draft EIR) was prepared using the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with agricultural resources. The following Initial Study screening criterion related to agricultural resources do not require additional analysis in this Draft EIR:

1. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
2. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
3. Result in the loss of forestland or conversion of forestland to non-forest land.

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

REGULATORY SETTING

State

California Department of Conservation

The Department of Conservation (DOC) Division of Land Resource Protection administers the the Farmland Mapping and Monitoring Program (FMMP)¹ and produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance.

A classification system that combines soil survey information developed by the US Department of Agriculture (USDA) and current land use is the basis for the Important Farmland Maps. Most public land areas, such as National Forests and Bureau of Land Management holdings, are not mapped. The minimum land use mapping unit is 10 acres unless otherwise specified. Smaller units of land are incorporated into

¹ California Department of Conservation (DOC). Division of Land Resource Protection. "Farmland Mapping and Monitoring Program (FMMP)." <https://www.conservation.ca.gov/dlrp/fmmp>. Accessed October 2022.

the surrounding map classifications. In order to most accurately represent the Natural Resources Conservation Service (NRCS) digital soil survey, soil units of one acre or larger are depicted in Important Farmland Maps.

The following categories are identified in the FMMP:²

Prime Farmland (P)

Irrigated land with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.

Farmland of Statewide Importance (S)

Irrigated land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.

Unique Farmland (U)

Lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Farmland of Local Importance (L)

Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Grazing Land (G)

Land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Urban and Built-up Land (D)

Urban and Built-Up land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial,

2 DOC. "California Important Farmland Finder." <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed October 2022.

5.1 Agricultural and Forestry Resources

commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

Other Land (X)

Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Water (W)

Water areas with an extent of at least 40 acres.

Area Not Mapped (Z)

Area which falls outside of the NRCS soil survey. Not mapped by the FMMP.

For environmental review purposes under CEQA, the categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land constitute 'agricultural land' (Public Resources Code Section 21060.1). The remaining categories are used for reporting changes in land use in the FMMP biennial farmland conversion report.

Williamson Act and Farm Land Security Act

The California Land Conservation Act,³ also known as the Williamson Act, was established with the basic intent of encouraging the preservation of the State's agricultural lands in view of increasing trends toward their "premature and unnecessary" urbanization. The act enables local governments to enter into contracts with private landowners for restricting specific parcels of land to agricultural and open-space uses. In return, landowners receive reduced property tax assessments. These reduced rates are much lower than normal as they are based upon farming and open space uses as opposed to full market value of the land. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act.⁴

The California Department of Conservation, under the Farmland Security Zone Act passed in 1998,⁵ allows individual counties to establish an additional program for farmlands to enter into contract with the State to receive a benefit similar to Williamson Act contracts. The Farmland Security Act is a 20-year

3 California Government Code §§ 51200 to 51297.

4 California Government Code §§ 16140 through 16154.

5 Farmland Security Zone program enacted by the State Legislature in 1998 at Article 7 commencing with Section 51296 of the Williamson Act.

self-renewing contract that allows property owners with qualifying parcels to receive an additional 35 percent in tax savings above that which is received under the Williamson Act contract.

As discussed in the Initial Study (IS) for the Project, none of the parcels within Project Site are under either Williamson Act or Farmland Security Act contracts.⁶

Regional and Local Regulations

City of Indio General Plan

Conservation Element

The Conservation Element addresses the conservation, development, and sustainable use of Indio's natural resources, including, but not limited to, water, soils, natural gas, fossil fuels, renewable energy sources, and mineral deposits.⁷ The General Plan states that as the City continues to urbanize, commercial agriculture is very slowly being replaced by other land uses. The Conservation Element includes the following goal and policies related to the protection of soils for agricultural use:

Goal CE-6: **Soils.** The protection of soils from erosion by wind and water, and from the build-up of salts on agricultural lands.

CE-6.1 **Grading.** Minimize grading of land to project specific efforts so as to limit the impact of soil erosion from wind, water, and landslides in areas of unstable slopes, and reduce negative aesthetic impacts in areas of significant landforms.

CE-6.2 **Agricultural soil erosion.** Continue to work with agricultural property owners and operators to minimize the impacts of tilling and grading on soil erosion.

CE-6.3 **Agricultural best practices.** Promote best agricultural practices regarding to address surface and groundwater contamination, particulate emissions from agricultural operations, minimal soil erosion, and the buildup of salts in soils.

ENVIRONMENTAL SETTING

The City of Indio's location and combination of climate and soil types support production of off-season and specialty crops, including grapes, citrus, dates, and other fruit and vegetable crops.⁸ There is a wide variety of soils within the City that vary appreciably in origin, degree of weathering, depth, and texture. Many locations in the City still have the productive soil and availability to other resources necessary to support agriculture, such as water, to be well suited for agricultural purposes.

6 DOC. Division of Land Resource Protection. "State of California Williamson Act Contract Land." [https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/\(E\)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf](https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/(E)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf). Accessed October 2022.

7 City of Indio. *City of Indio General Plan*. "Conservation Element." <https://www.indio.org/home/showpublisheddocument/894/637874287825370000>. Accessed October 2020.

8 City of Indio. *City of Indio General Plan Update EIR (2040)*. "Chapter 4.2: Agriculture and Forestry Resources." Page 4.2-1. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022.

Existing Conditions

The Project Site consists of 378 acres located between Madison Street, 40th Avenue, Jefferson Street and 38th Avenue within the “Northwest Indio Subarea” as defined in the City’s General Plan. The Site is designated “Suburban Neighborhood” in the General Plan Land Use Element and is zoned as “Residential Low” and “Village Core.”⁹

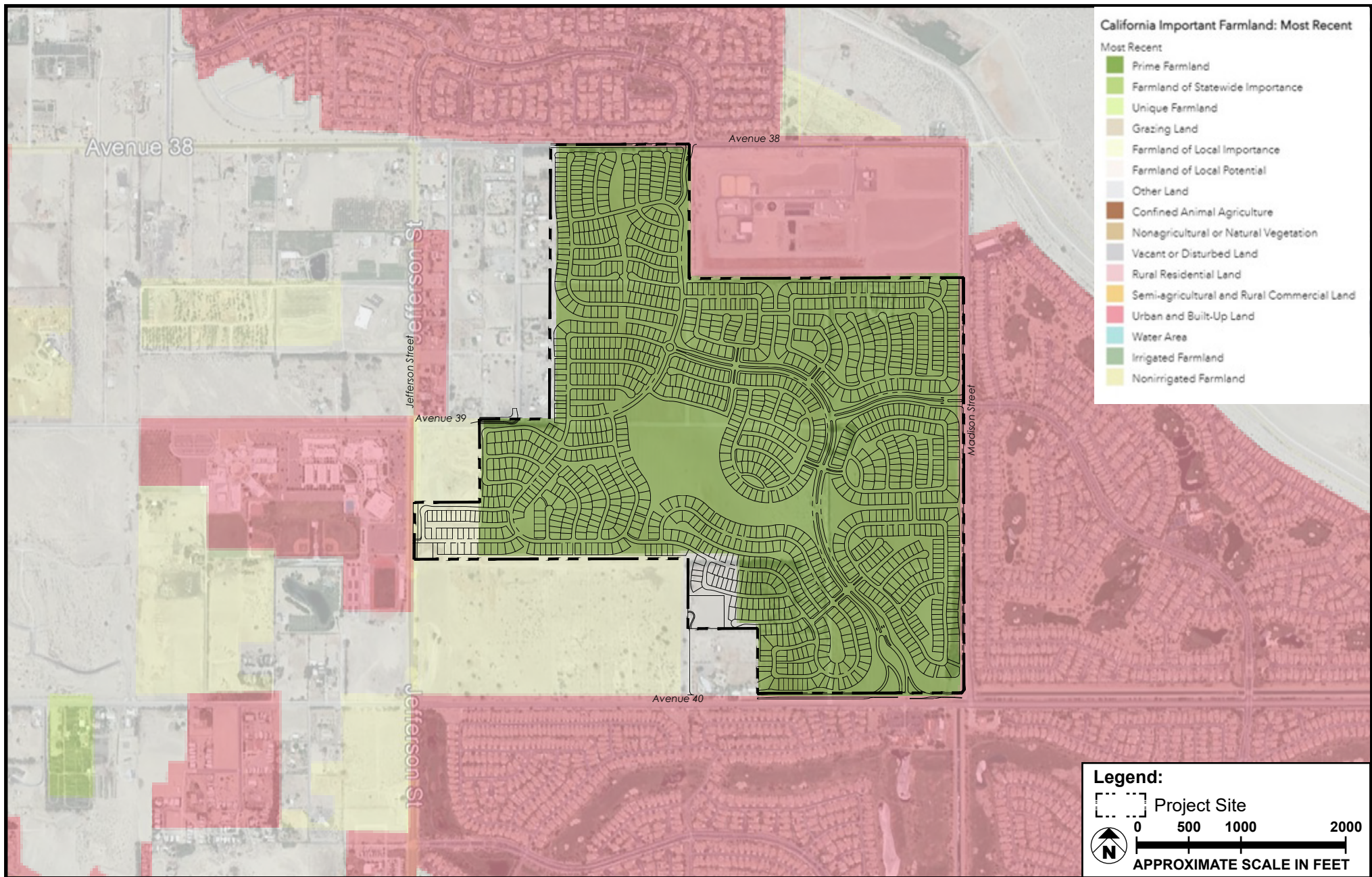
The current State Important Farmland Map for Riverside County was prepared in 2018. As shown in **Figure 5.1-1: Project Site State Important Farmland Map Designations**, the majority of the Project Site, consisting of the north, central, and east portions, is identified as “Prime Farmland” on this 2018 map.¹⁰ The southwest corner of the site is identified as “Farmland of Local Importance” and a small area along the southern edge of the Site is designated as “Other Land.”

The Project Site includes approximately 361-acres of Prime Farmland, 7.1-acres of Farmland of Local Importance, 1.4-acres of Urban and Built-up Land, and 8.3-acres of Other Land as designated on the 2018 State Important Farmland Map.

None of the parcels in the Project Site are under either Williamson Act or Farmland Security Act contracts.¹¹

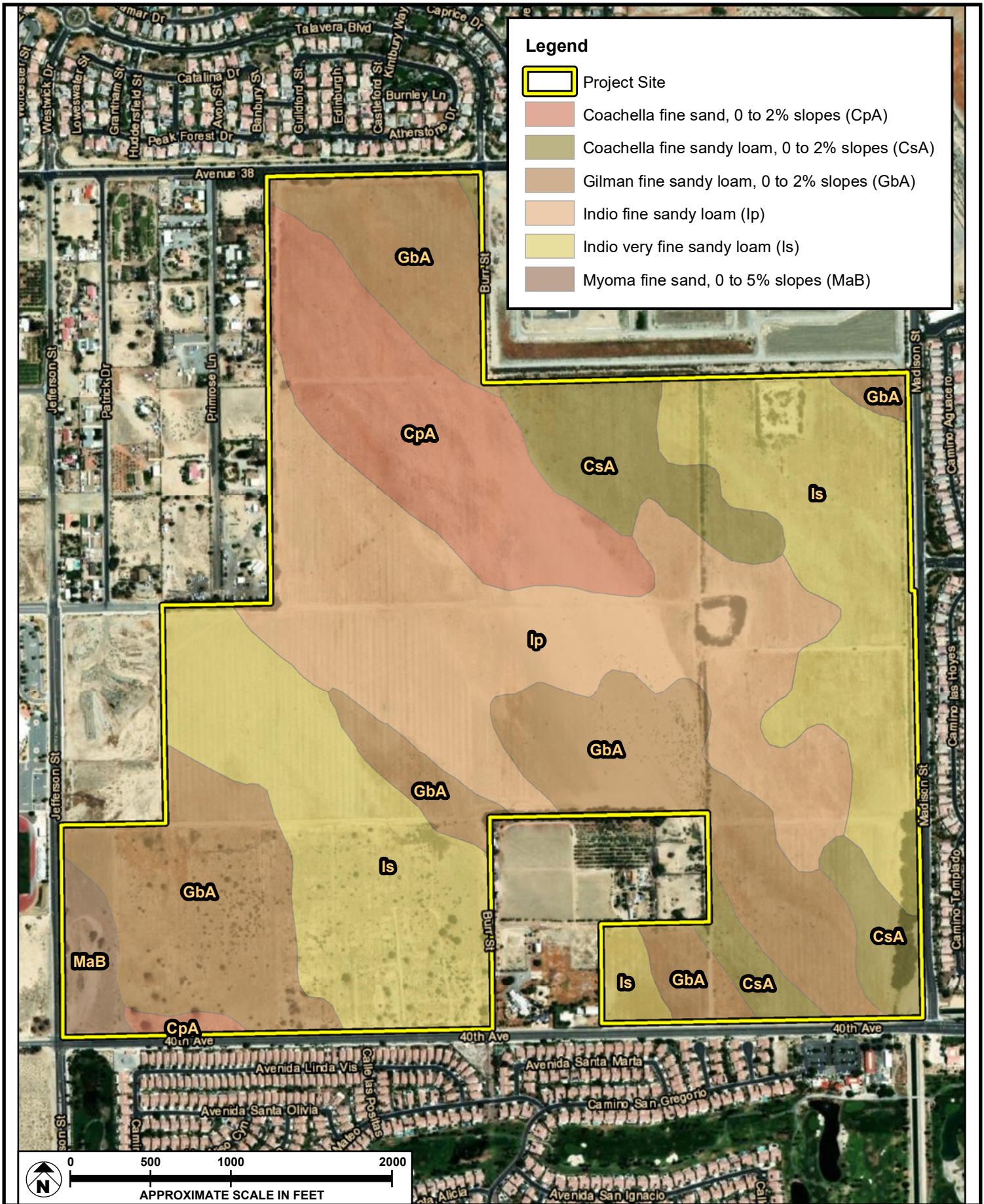
As shown in **Figure 5.1-2: Project Site Soils Map**, soils in the Project area are comprised of approximately 49.3-acres of Coachella fine sand 0 to 2 percent slopes (CpA), approximately 41.0-acres of Coachella fine sandy loam 0 to 2 percent slopes (CsA), approximately 98.0-acres of Gilman fine sandy loam 0 to 2 percent slopes (GbA), approximately 95.8-acres of Indio fine sandy loam (Ip), and approximately 95.6-acres of Indio very fine sandy loam (Is).¹² The soils within the Project Site have a Storie index rating of 61 to 80 for CpA and 81 to 100 for CsA, GbA, Ip, and Is.

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- 9 City of Indio. “Indio Proposed Zoning and Land Use Map.” <https://raimi.maps.arcgis.com/apps/webappviewer/index.html?id=dd6ecffaca4e4ce5b26c0310197e94d8>. Accessed October 2022.
- 10 DOC. “California Important Farmland Finder.” <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed October 2022.
- 11 DOC. Division of Land Resource Protection. “State of California Williamson Act Contract Land.” [https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/\(E\)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf](https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/(E)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf). Accessed October 2022.
- 12 United States Department of Agriculture. “Web Soil Survey.” <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed October 2022.



SOURCE: California Department of Conservation, Farmland Mapping and Monitoring Program – 2018; Google Earth - 2022

FIGURE 5.1-1



SOURCE: Source: ELMT Consulting – 2022

FIGURE 5.1-2

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, CEQA identifies criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following thresholds, under which a project may be deemed to have a significant impact on agricultural resources if it would:

Threshold 5.1-1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Threshold 5.1-2: Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use, or conversion of forestland to non-forest use.

Project Impacts

Threshold 5.1-1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

The proposed Desert Retreat Specific Plan would implement the City's General Plan by regulating development of the Project site with residential uses as allowed by the current Suburban Neighborhood land use designation for the site. The Project site is not designated for agricultural use in the Indio General Plan.

The 2020 IFL mapping update is currently underway, however, the update for Riverside County has not been completed.¹³ Portions of the Project Site are designated as Prime Farmland and Farmland of Local Importance on the 2018 Important Farmland Map.¹⁴ To qualify as Prime Farmland, land must have been used for irrigated agricultural production at some time during the four years prior to the date of the most recent Important Farmland Mapping cycle and the soils must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the USDA Natural Resources Conservation Service (NRCS).¹⁵ Farmland of Local importance is categorized based on importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

13 Correspondence with Michael Kisko, Environmental Scientist. "CDFW - Farmland Mapping and Monitoring Program." May 2022. See Appendix C.

14 DOC. Division of Land Resource Protection. "California Important Farmland Finder (2018)." <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed May 2022.

15 DOC. Division of Land Resource Protection. "California Important Farmland Finder." <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed October 2022.

5.1 Agricultural and Forestry Resources

The City of Indio General Plan Update EIR, completed in June 2019 recognizes that the 2018 IFL map is based on data collected from the previous two years (2016 and 2017).¹⁶ Figure 4.2-2 in the General Plan EIR identifies fallow and active agricultural land within the City. The General Plan EIR identifies the Project Site as fallow land.¹⁷ As there have been no active irrigated farming on the site since 2018, which is over four years ago, the site no longer meets the criteria for identification as Prime Farmland, and in addition, this site is designated for urban uses by the Indio General Plan. Therefore, this impact is less than significant.

The land surrounding the Project Site on the north, southeast, and west is primarily designated as Urban and Built-Up Land on the 2018 IFL Map with small areas designated as Farmland of Local Importance to the south and Other Land to the south and west. The Imperial Irrigation District (IID), which would service the Project's electricity needs, indicated that an additional substation would be necessary to adequately serve the Project Site. The first site is located east of Burr Street within the Project Site and is currently under review with IID. The alternative site is located on the northwest corner of Burr Street and Avenue 40. The alternative site, outside of the Project Site, is designated as Farmland of Local Importance. However, like the Project Site, this alternate substation site has not been actively used for agriculture for over 4 years and is designated for urban uses by the Indio General Plan. Accordingly, if this alternative substation site is used in connection with the Project, this impact would remain less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold 5.1-2: **Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use, or conversion of forestland to non-forest use?**

The land surrounding the Project Site is designated on the 2018 IFL Map as Urban and Built-Up Land to the immediate north, southeast, and west small areas designated as Farmland of Local Importance to the south and Other Land to the south and west. The Project Site, as well as the alternative substation site, is designated for development of residential uses by the City's General Plan. Development of the Project site with residential uses would not result in other changes to the existing environment that would result in the conversion of any nearby active farmland to non-agricultural use or conversion of forestland to non-forest use as no land near the Project site is designated by the City's General Plan for agricultural use and no forestland is present in the City.

16 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 4.2-3.
<https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed November 2022.

17 City of Indio. *City of Indio General Plan Update EIR (2019)*. "Chapter 4.2." Figure 4.2-2 and Figure 4.2-3.
<https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022.

Mitigation Measures

No mitigation measures are required.

CUMULATIVE IMPACTS

The City's General Plan Conservation Element identifies soil types within the City suitable for agriculture and defines goals for protecting and enhancing soil quality through conservation efforts and utilizing best management practices. The City's General Plan EIR identified approximately 467 acres of active farmland and 819 acres of fallow farmland identified as Prime or Unique Farmland on the 2018 IFL within the City.¹⁸ The City's General Plan does not designate any land within the City for agricultural use and the General Plan EIR identifies that implementation of the City's General Plan would result in the potential conversion of this 1,286 acres of fallow and active farmland identified as Prime or Unique Farmland to urban uses. This potential conversion of agricultural land identified as Prime or Unique Farmland on the 2018 IFL map is identified in the General Plan EIR as an unavoidable significant cumulative impact. As the Project Site no longer meets the criteria for Prime Farmland, implementation of the proposed Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

18 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 4.2-9.
<https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed November 2022.

5.2 AIR QUALITY

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan (Desert Retreat or Project) to impact air quality on a local and regional context. More specifically, this section evaluates impacts associated with the Project that may potentially affect regional and local air quality. Various federal, State, regional, and local programs and regulations related to anticipated air quality impacts are also discussed in this section. Emission calculations and air quality modeling completed for the Project are contained in **Appendix D: Air Quality Data** of this Draft EIR.

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

ENVIRONMENTAL SETTING

Air Quality Background

The Project Site lies within the Salton Sea Air Basin (SSAB), which spans the Coachella Valley portion of the County of Riverside and the entire County of Imperial. Air quality management of the Riverside County portion of the SSAB is overseen by SCAQMD. The Riverside County portion of the SSAB is bound by the San Jacinto Mountains to the west and spans eastward up to the Palo Verde Valley. The SSAB and the adjacent Mojave Desert Air Basin were previously included in a single large air basin known as the Southeast Desert Air Basin. However, CARB has subdivided this larger basin into the two separate air basins that are in place today.

The SSAB is classified as having a desert climate characterized by low precipitation, hot summers, mild winters, low humidity, and strong temperature inversions. The annual average temperature varies little throughout the SSAB, ranging from the low 40s to the low 100s, measured in degrees Fahrenheit (°F). The Western Regional Climate Center (WRCC) maintains historical climate information for the western US, including the City of Palm Springs which is the closest meteorological monitoring station to the Project Site (Station ID No. 046635). According to this Station, the annual maximum temperature in the local vicinity is 108.2°F in July, while the annual minimum temperature reported is 42.3°F in December and January. The average annual rainfall for the Project area ranges from 5 to 6 inches.¹

Air pollutant emissions within the SSAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point

¹ Western Regional Climate Center. "Palm Springs Station: Period of Record Monthly Climate Summary" (period of record 03/01/1906-06/10/2016). <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6635>. Accessed November 2022.

sources are boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as barbecue lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircrafts, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

The U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) designate air basins where air pollution levels exceed the State or federal ambient air quality standards (AAQS) as “nonattainment” areas. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted for them. The federal and State standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly with a margin of safety, and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, an area is considered “unclassified.” Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Transportation conformity for nonattainment and maintenance areas is required under the federal Clean Air Act (CAA) to ensure federally supported highway and transit projects conform to the State Implementation Plan (SIP). The USEPA approved California’s SIP revisions for attainment of the 1997 8-hour ozone (O₃) National AAQS for the Basin in October 2019. The State and federal AAQS are summarized in **Table 5.2-1: Ambient Air Quality Standards**.

Ambient air pollution can cause public health concerns and can contribute to increases in respiratory illness and death rates. Air pollution can affect the health of both adults and children. The adverse health effects associated with air pollution are diverse and include cardiovascular effects, premature mortality, respiratory effects, cancer, reproductive effects, neurological effects, and other health outcomes.²

2 South Coast Air Quality Management District (SCAQMD). *2016 Air Quality Management Plan*, “Appendix I: Health Effects” (March 2017). <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-i.pdf?sfvrsn=14>. Accessed November 2022.

**TABLE 5.2-1
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O ₃)	1 hour	0.09 ppm (180 µg/m ³)	Ultraviolet photometry	–	Same as primary standard	Ultraviolet photometry
	8 hours	0.07 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable particulate matter (PM ₁₀)	24 hours	50 µg/m ³	Gravimetric or beta attenuation	150 µg/m ³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	20 µg/m ³		–		
Fine particulate matter (PM _{2.5})	24 hours	No separate State standard		35 µg/m ³	Same as primary standard	Inertial separation and gravimetric analysis
	Annual arithmetic mean	12 µg/m ³	Gravimetric or beta attenuation	15 µg/m ³		
Carbon monoxide (CO)	8 hours	9.0 ppm (10 mg/m ³)	Nondispersive infrared photometry (NDIR)	9 ppm (10 mg/m ³)	None	NDIR
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.03 ppm (57 µg/m ³)	Gas phase chemiluminescence	0.053 ppm (100 µg/m ³)	Same as primary standard	Gas phase chemiluminescence
	1 hour	0.18 ppm (339 µg/m ³)		0.100 ppm (188 µg/m ³)		

Source: California Air Resources Board, <http://www.arb.ca.gov/research/aaqs/aaqs.htm>. Accessed November 2022.

Note: ppm = parts per million.

Criteria Air Pollutants and Health Effects

The criteria air pollutants that are most relevant to current air quality planning and regulation in the SSAB include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb). In addition, volatile organic compounds (VOC) and toxics air contaminants (TACs) are a concern in the SSAB but are not classified under AAQS.

Elevated concentrations of certain air pollutants in the atmosphere have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants. In the United States, such pollutants have been identified and are regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the USEPA and are subject to emissions control requirements adopted by federal, State, and local regulatory agencies. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted pertaining to them.

The USEPA established the National Ambient Air Quality Standards (NAAQS) to “provide public health protection, including protecting the health of ‘sensitive’ populations such as asthmatics, children, and the elderly,” allowing “an adequate margin of safety.” California Ambient Air Quality Standards (CAAQS) were “established to protect the health of the most sensitive groups in our communities” and “defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment.”³ The characteristics of each criteria pollutant and their health effects are briefly described below.

Ozone (O₃)

O₃ is a highly reactive and unstable gas that is formed when reactive organic gases (ROGs), sometimes referred to as VOCs and NO_x, byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

According to USEPA, O₃ can cause the muscles in the airways to constrict, potentially leading to wheezing and shortness of breath. O₃ can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease.⁴

Long-term exposure to O₃ is linked to aggravation of asthma and is likely to be one of many causes of asthma development. Long-term exposures to higher concentrations of O₃ may also be linked to permanent lung damage, such as abnormal lung development in children.⁵ According to CARB, inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms, and exposure to O₃ can reduce the volume of air that the lungs breathe in and cause shortness of breath.⁶

USEPA states that people most at risk from breathing air containing O₃ include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.⁷ Children are at

3 California Air Resources Board (CARB). “California Ambient Air Quality Standards.” <https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards>. Accessed November 2022.

4 US Environmental Protection Agency (USEPA). “Health Effects of Ozone Pollution.” <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed November 2022.

5 USEPA. “Health Effects of Ozone Pollution.” <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed November 2022.

6 USEPA. “Health Effects of Ozone Pollution.” <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed November 2022.

7 USEPA. “Health Effects of Ozone Pollution.” <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed November 2022.

greatest risk from exposure to O₃ because their lungs are still developing and they are more likely to be active outdoors when O₃ levels are high, which increases their exposure.⁸ According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to O₃ and other pollutants because they spend nearly twice as much time outdoors in vigorous activities compared to adults.⁹ Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and 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.

Carbon Monoxide (CO)

CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the SSAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

According to the USEPA, breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, possible indoors or in other enclosed environments. CO can cause dizziness, confusion, unconsciousness, and death.¹⁰ Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain, also known as angina.

According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain.¹¹ 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, infants, elderly people,

8 USEPA. "Health Effects of Ozone Pollution." <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed November 2022.

9 USEPA. "Health Effects of Ozone Pollution." <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>. Accessed November 2022.

10 USEPA. "Carbon Monoxide (CO) Pollution in Outdoor Air." <https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution>. Accessed November 2022.

11 CARB. "Carbon Monoxide & Health." <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>. Accessed November 2022.

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.

Nitrogen Dioxide (NO₂) and Nitrogen Oxides (NO_x)

NO₂ is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO), similar to O₃. NO₂ is also a byproduct of fuel combustion. NO and NO₂ are collectively referred to as NO_x and are major contributors to O₃ formation. NO₂ also contributes to the formation of PM₁₀. High concentrations of NO₂ can cause breathing difficulties and there is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase of bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 ppm.

According to the USEPA, short-term exposures to NO₂ can potentially aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), leading to hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. According to CARB, controlled human exposure studies show that NO₂ exposure can intensify responses to allergens in allergic asthmatics.¹²

In addition, a number of epidemiological studies have demonstrated associations between NO₂ exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses.¹³ Infants and children are particularly at risk from exposure to NO₂ because they have disproportionately higher exposure to NO₂ than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration; while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

CARB states that much of the information on distribution in air, human exposure, dose, and health effects is primarily given for NO₂ and there is only limited information for NO and NO_x, as well as large uncertainty in relating health effects to NO or NO_x exposure.¹⁴

12 CARB. "Nitrogen Dioxide & Health." <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health>. Accessed November 2022.

13 CARB. "Nitrogen Dioxide & Health." <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health>. Accessed November 2022.

14 CARB. "Nitrogen Dioxide & Health." <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health>. Accessed November 2022.

Particulate Matter (PM₁₀) and Fine Particulate Matter (PM_{2.5})

Particulate Matter (PM) consists of small liquid and solid particles floating in the air, including smoke, soot, dust, salts, acids and metals, and can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Sources of PM₁₀ emissions include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands.¹⁵ Sources of PM_{2.5} emissions include combustion of gasoline, oil, diesel fuel, or wood. PM₁₀ and PM_{2.5} may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as SO₂, NO_x, and certain organic compounds.

A consistent correlation between elevated ambient respirable and fine particulate matter (PM₁₀ and PM_{2.5}) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life span, and an increased mortality from lung cancer.

According to CARB, both PM₁₀ and PM_{2.5} can be inhaled, with some depositing throughout the airways; PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung, while PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage and lung inflammation.¹⁶ Short-term (up to 24 hours duration) exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. The effects of long-term (months or years) exposure to PM₁₀ are less clear, although studies suggest a link between long-term PM₁₀ exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer.

Short-term exposure to PM_{2.5} has 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. Long-term exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.¹⁷ According to CARB, populations most likely to experience adverse health effects with exposure to PM₁₀ and PM_{2.5} include older adults with chronic heart or lung disease, children, and asthmatics. Children and infants are more susceptible to harm from inhaling pollutants such as PM₁₀ and

15 CARB. "Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)."
<https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm>. Accessed November 2022.

16 CARB. "Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)."
<https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm>. Accessed November 2022.

17 CARB. "Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)."
<https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm>. Accessed November 2022.

PM_{2.5} compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems.

Sulfur Dioxide (SO₂) and Sulfur Oxides (SO_x)

Sulfur Dioxide (SO₂) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal, as well as from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfates (SO₄). Collectively, these pollutants are referred to as sulfur oxides (SO_x).

According to the USEPA, short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult.¹⁸ According to CARB, health effects at levels near the State one-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. Exposure at elevated levels of SO₂ (above 1 parts per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.¹⁹ Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO₂.^{20,21}

Lead (Pb)

Lead (Pb) occurs in the atmosphere as particulate matter and is also considered a TAC. The combustion of leaded gasoline is the primary source of airborne lead in the SSAB. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so the majority of such combustion emissions are associated with off-road vehicles. However, because leaded gasoline was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, Pb is present in many urban soils and can be resuspended in the air. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary Pb smelters.

Pb can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system, and affects the oxygen carrying capacity of blood. The Pb effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage.²² Excessive Pb exposure in adults can cause reproductive problems in men and women, high blood pressure,

18 USEPA. "Sulfur Dioxide (SO₂) Pollution." <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>. Accessed November 2022.

19 CARB. "Sulfur Dioxide & Health." <https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health>. Accessed November 2022.

20 CARB. "Sulfur Dioxide & Health." <https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health>. Accessed November 2022.

21 USEPA. "Sulfur Dioxide (SO₂) Pollution." <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>. Accessed November 2022.

22 CARB. "Lead & Health." <https://ww2.arb.ca.gov/resources/lead-and-health>. Accessed November 2022.

kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.

While the SCAQMD CEQA Air Quality Handbook contains numerical indicators of significance for Pb, project construction and operation would not include sources of Pb emissions and would not exceed the numerical indicators for Pb.

Volatile Organic Compounds (VOCs)

VOCs include any compound of carbon, excluding CO, CO₂, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions and thus, a precursor of ozone formation. VOC emissions often result from the evaporation of solvents in architectural coatings. Reactive organic gases are any reactive compounds of carbon, excluding methane, CO, CO₂, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and other exempt compounds. ROG emissions are generated from the exhaust of mobile sources.²³ Both VOCs and ROGs are precursors to ozone and the terms can be used interchangeably.²⁴

Toxic Air Contaminants (TACs)

Toxic Air Contaminants (TACs) or hazardous air pollutants (HAPs), are defined by the USEPA as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. For consistency within this document, they will be referred to as TACs. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. TACs may exist as PM₁₀ and PM_{2.5} or as vapors (gases). TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources. The emission of a TAC does not automatically create a health hazard. Other factors, such as the amount of the TAC, its toxicity, how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health. Emissions of TACs into the air can be damaging to human health and to the environment. Human exposure to TACs at sufficient concentrations and durations can result in cancer, poisoning, and rapid onset of sickness such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems. TACs deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food. The carcinogenic potential of TACs is a particular public health concern because many scientists

23 SCAQMD. "Appendix A: Calculation Details for CalEEMod (May 2021)." <http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6>. Accessed November 2022.

24 Both VOC and ROGs are precursors to ozone so they are summed in the CalEEMod report under the header ROG. For the purposes of comparing the ROG value to a VOC significance threshold, the terms can be used interchangeably.

currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer.²⁵

The public's exposure to TACs is a significant public health issue in California. The Air Toxics "Hotspots" Information and Assessment Act is a State law requiring facilities to report emissions of TACs to air districts.²⁶ The program is designed to quantify the amounts of potential TACs released, the location of the release, the concentrations to which the public is exposed, and the resulting health risks. The Air Toxics "Hotspots" Program (AB 2588) identified over 200 TACs, including the 188 TACs identified in the CAA.²⁷

The USEPA has assessed this expansive list and identified 21 TACs as Mobile Source Air Toxics (MSATs).²⁸ MSATs are compounds emitted from highway vehicles and nonroad equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline. USEPA also extracted a subset of these 21 MSAT compounds that it now labels as the nine priority MSATs: 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (DPM)/diesel exhaust organic gases, ethylbenzene, naphthalene, and polycyclic organic matter (POM). While these nine MSATs are considered the priority transportation toxics, USEPA stresses that the lists are subject to change and may be adjusted in future rules.²⁹

Diesel Exhaust

According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from the exhaust of diesel-fueled engines (i.e., Diesel Particulate Matter (DPM) differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances).

Diesel exhaust is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of many of the urban TACs, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine diesel particulates are of the greatest health concern and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals, and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines; on-road diesel engines of trucks, buses and cars, and off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment. Although DPM is emitted

25 USEPA. "Hazardous Air Pollutants." <https://www.epa.gov/haps>. Accessed November 2022.

26 CARB. "General Information About 'Hot Spots.'" <https://www.arb.ca.gov/ab2588/general.htm>. Accessed November 2022.

27 CARB. "AB 25188 Air Toxics 'Hot Spots' Program." <https://www.arb.ca.gov/ab2588/ab2588.htm>. Accessed November 2022.

28 USEPA. *Air Toxics Risk Assessment Reference Library, Volume 1 Technical Resource Manual*. April 2004.

29 US Department of Transportation Federal Highway Administration. *Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents*.

by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

The most common exposure to DPM is breathing air that contains diesel exhaust. The fine and ultra-fine particles are respirable (similar to $PM_{2.5}$), which means that they can avoid many of the human respiratory defense mechanisms and enter deeply into the lungs. Exposure to DPM comes from both on-road and off-road engine exhaust that is either directly emitted from the engines or lingering in the atmosphere.

Diesel exhaust causes health effects from long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to only DPM, but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes chronic health effects as well as having cancer-causing potential.

DPM also contributes noncancer health effects in the same manner as $PM_{2.5}$ exposure. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Those most vulnerable to noncancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.³⁰

Gasoline Exhaust

Similar to diesel exhaust, gasoline is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of the same TACs, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine diesel particulates are of the greatest health concern and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals, and other trace elements. Gasoline exhaust is primarily emitted from light-duty passenger vehicles. The compounds in the gas and particles phases can cause health effects from short- and long-term exposures similar to those described under the TAC and particulate matter discussions above.

Visibility Reducing Particles

Visibility-reducing particles are any particles in the atmosphere that obstruct the range of visibility by creating haze.³¹ These particles vary in shape, size, and chemical composition, and come from a variety of natural and manmade sources including windblown metals, soil, dust, salt, and soot. Other haze-causing particles are formed in the air from gaseous pollutant (e.g., sulfates, nitrates, organic carbon

30 CARB. "Overview: Diesel Exhaust & Health." <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>. Accessed November 2022.

31 CARB. "Visibility Reducing Particles and Health." <https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health>. Accessed November 2022.

particles) which are the major constituents of fine PM, such as PM_{2.5} and PM₁₀, and are caused from the combustion of fuel. CARB's standard for visibility reducing particles is not based on health effects but rather on welfare effects such as reduced visibility and damage to materials, plants, forests, and ecosystems. The health impacts associated with PM_{2.5} and PM₁₀ are discussed above under Particulate Matter.

Regional

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of air pollution in the SSAB is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography affect the accumulation and dispersion of pollutants throughout the SSAB.

California Health and Safety Code section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 5.2-2: Salton Sea Air Basin Attainment Status** provides a summary of the attainment status of the Riverside County portion of the SSAB with respect to the federal and State standards.

As shown, the SSAB is currently designated as being in nonattainment at the federal level for O₃ and PM₁₀; and at the State level for O₃ and PM₁₀. Emissions of O₃, NO_x, VOC, and CO have been decreasing in the SSAB since 1975 and are projected to continue to decrease through 2031.³² These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SSAB continue to increase, emissions are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles.

32 SCAQMD. *Final 2016 Air Quality Management Plan*. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=11>. Accessed November 2022.

**TABLE 5.2-2
SALTON SEA AIR BASIN ATTAINMENT STATUS**

Pollutant	State Status	National Status
Ozone (O ₃)	Nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen dioxide (NO ₂)	Attainment	Unclassified/Attainment
Sulfur dioxide (SO ₂)	Attainment	Unclassified/Attainment
Respirable particulate matter (PM ₁₀)	Nonattainment	Nonattainment
Fine particulate matter (PM _{2.5})	Attainment	Unclassified/Attainment

Source: California Air Resources Board (CARB) Area Designation Maps / State and National, <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>. Accessed August 2022.

In 1984, as a result of public concern for exposure to airborne carcinogens, CARB adopted regulations to reduce the amount of TAC emissions resulting from mobile and area sources such as cars, trucks, stationary products, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article,³³ which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

SCAQMD has prepared an Air Basin-wide air toxics study, the Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-V).³⁴ MATES V field measurements were conducted at ten fixed sites (the same sites selected for MATES III and IV) to assess trends in air toxics levels. MATES V also included measurements of ultrafine particles (UFP) and black carbon (BC) concentrations, which can be compared to the UFP levels measured in MATES IV. In addition to new measurements and updated modeling results, several key updates were implemented in MATES V. First, MATES V estimates cancer risks by taking into account multiple exposure pathways, which includes inhalation and non-inhalation pathways. This approach is consistent with how cancer risks are estimated in SCAQMD's programs such as permitting, Air Toxics Hot Spots (AB 2588), and CEQA. Previous MATES studies quantified the cancer risks based on the inhalation pathway only. Second, along with cancer risk estimates, MATES V includes information on the chronic non-cancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and

33 Ralph Propper, Patrick Wong, Son Bui, Jeff Austin, William Vance, Alvaro Alvarado, Bart Croes, and Dongmin Luo. *Ambient and Emission Trends of Toxic Air Contaminants in California*, American Chemical Society: Environmental Science & Technology. 2015.

34 SCAQMD. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES V) Final Report*. <https://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf?sfvrsn=6>. Accessed November 2022.

chronic non-cancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazard Assessment (OEHHA) and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time. Overall, cancer risks have decreased across MATES II to MATES V at all monitoring stations.

Local Air Quality

For evaluation purposes, SCAQMD has divided its territory into 36 Source Receptor Areas (SRA) with operating monitoring stations in most of the SRAs. These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area. The Project Site is within SRA 30, Coachella Valley.³⁵ The nearest air monitoring station SCAQMD operates is located at 46990 Jackson Street.³⁶ **Table 5.2-3: Air Quality Monitoring Summary** lists the ambient pollutant concentrations registered and the violations of State and federal standards that have occurred at the abovementioned monitoring stations from 2018 through 2020, the most recent years for which data is available. The data shows that during the past few years, the region has exceeded the O₃, PM₁₀, and PM_{2.5} standards.

Existing Project Site Emissions

The Project Site is currently vacant and undeveloped; therefore, there are no emissions currently generated.

Surrounding Land Uses

The Project Site is bordered by Avenue 38 to the north, Madison Street to the east, Avenue 40 to the south, and Jefferson Street to the west. The Talavera residential community is located north of Avenue 38, with vacant land located to the northeast. The existing Sun City Shadow Hills age-restricted residential community is located east of the Project Site across Madison and south of the Project Site across Avenue 40. Adjacent to the Project Site to the west are single-family homes located along Trail Road. Several vacant, undeveloped properties are interspersed within the residential neighborhoods to the west. Shadow Hills High School is located to the west of the Project Site across Jefferson Street.

Sensitive Receptors

Some receptors are considered more sensitive to air pollutants than others because of preexisting health problems, proximity to the emissions source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential

35 SCAQMD. "General Forecast Areas and Air Monitoring Areas." Map. <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>. Accessed November 2022.

36 SCAQMD. "Site Survey Report for Indio-Jackson Street, AQS ID 060652002." <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-monitoring-network-plan/aaqmnp-indio.pdf>. Accessed November 2022.

areas are also considered sensitive to poor air quality because people in residential areas are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution because vigorous exercise associated with recreation places having a high demand on respiratory system function. CARB has identified the following people as most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and those with cardiovascular and chronic respiratory diseases. As discussed above, the Project Site is predominately surrounded by residential uses and Shadow Hills High School.

**TABLE 5.2-3
AIR QUALITY MONITORING SUMMARY**

Air Pollutant	Average Time (Units)	2018	2019	2020
Ozone (O ₃)	State Max 1 hour (ppm)	0.106	0.103	0.097
	Days > CAAQS threshold (0.09 ppm)	4	4	2
	National Max 8 hour (ppm)	0.091	0.087	0.084
	Days > NAAQS threshold (0.075 ppm)	49	43	42
	State Max 8 hour (ppm)	0.091	0.088	0.085
	Days > CAAQS threshold (0.07 ppm)	52	47	44
Carbon monoxide (CO)*	Max 1 hour (ppm)	1.1	1.3	0.8
	Days > CAAQS threshold (20 ppm)	0	0	0
	Days > NAAQS threshold (35 ppm)	0	0	0
	Max 8 hours (ppm)	0.8	0.7	0.5
	Days > CAAQS threshold (9.0 ppm)	0	0	0
	Days > NAAQS threshold (9.0 ppm)	0	0	0
Nitrogen dioxide (NO ₂)*	Max 1 hour (ppm)	0.043	0.041	0.047
	Days > NAAQS threshold (0.100 ppm)	0	0	0
	Days > CAAQS threshold (0.18 ppm)	0	0	0
Respirable particulate matter (PM ₁₀)	National 24 hours (µg/m ³)	336.0	141.9	145.2
	National Annual Average (µg/m ³)	34.8	28.5	31.6
	Days > NAAQS threshold (150 µg/m ³)	2	0	0
	State 24 hours (µg/m ³)	149.6	80.3	53.8
	State Annual Average (µg/m ³)	38.9	28.9	N/A
	Days > CAAQS threshold (50 µg/m ³)	14	4	2
Fine particulate matter (PM _{2.5})	National Max (µg/m ³)	28.7	15.0	41.3
	National Annual Average (µg/m ³)	8.3	7.3	10.4
	Days > NAAQS threshold (35 µg/m ³)	0	0	2

Source: California Air Resources Board, Top 4 Summary, <https://www.arb.ca.gov/adam/topfour/topfour1.php>.

* CO and NO₂ data from at SCAQMD, Historical Data By Year, <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>.

REGULATORY SETTING

Federal

Clean Air Act

The United States Environmental Protection Agency (USEPA) is responsible for the implementation of portions of the CAA³⁷ of 1970, which regulates certain stationary and mobile sources of air emissions and other requirements. Charged with handling global, international, national, and interstate air pollution issues and policies, the USEPA sets national vehicle and stationary source emission standards, oversees the approval of all State Implementation Plans,³⁸ provides research and guidance for air pollution programs, and sets NAAQS.³⁹ NAAQS for the six common air pollutants (O₃, PM₁₀ and PM_{2.5}, NO₂, CO, Pb, and SO₂) are identified in the CAA.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the Basin include Title I, Nonattainment Provisions, and Title II, Mobile Source Provisions.

The NAAQS were also amended in July 1997 to include an 8-hour standard for O₃ and to adopt a NAAQS for PM_{2.5}. The NAAQS were amended in September 2006 to include an established methodology for calculating PM_{2.5} and to revoke the annual PM₁₀ threshold. The CAA includes the following deadlines for meeting the NAAQS within the Basin: (1) 24-hour PM_{2.5} by the year 2019, which has not been updated since the adoption of the 2016 AQMP and (2) 8-hour O₃ by the year 2024. In addition, more stringent area requirements now apply including implementation of Best Available Control Measures/Best Available Control Technology (BACM/BACT), a lower major source threshold (from 100 tons per year to 70 tons per year), and an update to the reasonable further progress (RFP) analysis.⁴⁰

State

California Clean Air Act

The California CAA, signed into law in 1988, requires all areas of the State to achieve and maintain the California AAQS by the earliest practicable date. CARB, a part of the CalEPA, is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets State AAQS, compiles emission inventories,

37 42 U.S.C § 7401, et seq. <https://www.law.cornell.edu/uscode/text/42/7401>. Accessed November 2022.

38 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain National Ambient Air Quality Standards (NAAQS).

39 The NAAQS were established to protect public health, including that of sensitive individuals; for this reason, the standards continue to change as more medical research becomes available regarding the health effects of the criteria pollutants. The primary NAAQS define the air quality considered necessary, with an adequate margin of safety, to protect the public health.

40 SCAQMD. *Final 2016 Air Quality Management Plan (2017)*. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>. Accessed November 2022.

develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions and the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the State. The CAAQS include more stringent standards than the NAAQS.

California Air Toxics Program

The California Air Toxics Program was established in 1983 when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and the OEHHA determine if a substance should be formally identified, or “listed,” as a TAC. Since inception of the program, a number of such substances have been listed. In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants (HAPs) as TACs. In 1999, CARB completed the final staff report, Update to the Toxic Air Contaminant List. The list represented the priorities for identifying and regulating substances as directed by State law. The report described the process followed by CARB in reviewing and revising the TAC List and presented changes to the list.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures (ATCMs), both for mobile and stationary sources. In 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs (see below for additional information).

Air Toxics “Hotspots” Program (AB 2588)

AB 2588 was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The Air Toxics program’s goals include collecting emission data, identifying facilities having localized impacts, ascertaining health risks, notifying nearby residents of significant risks, and reducing those significant risks to acceptable levels. The Air Toxics program provides direction and criteria to facilities on how to compile and submit air toxic emission data required by the “Hot Spots” Program and requires the local air district to prioritize facilities to determine which facilities must perform a health risk assessment. Facilities identified as high risk are required to reduce their toxic emissions to acceptable levels as determined by the local air district.⁴¹

41 CARB. “AB 2588 Air Toxics ‘Hot Spots’ Program.” <http://www.arb.ca.gov/ab2588/ab2588.htm>. Accessed November 2022.

California Code of Regulations

The California Code of Regulations (CCR) includes regulations that pertain to air quality emissions. Specifically, 13 Cal. Code of Regs. § 2485 limits idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction to 5 minutes at any location. Additionally, 17 Cal. Code of Regs. § 93115 requires operation of any stationary, diesel-fueled, compression-ignition engines to meet specified fuel and fuel additive requirements and emission standards.

California Motor Vehicle Code

The vehicle programs are a critical component in the SIP for achieving national ambient air quality standards in the South Coast.⁴² They are also integral in CARB's Scoping Plan⁴³ to achieve the greenhouse gas (GHG) emission reduction goals that were established through the California legislation and Executive Orders.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13 of the California Code of Regulations, Section 2485)

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling⁴⁴ measure includes regulations that pertain to air quality emissions. Specifically, Section 2485 states that the idling of all diesel-fueled commercial vehicles weighing more than 10,000 pounds shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR⁴⁵ states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

CARB Rule 2449, General Requirements for In-Use Off-Road Diesel-Fueled Fleets

CARB Rule 2449 requires off-road diesel vehicles to limit nonessential idling to no more than five consecutive minutes.⁴⁶

42 CARB. "California State Implementation Plans" (last reviewed September 21, 2018). <https://www.arb.ca.gov/planning/sip/sip.htm>. Accessed November 2022.

43 CARB. *AB 32 Scoping Plan (January 8, 2018)*. <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed November 2022.

44 CARB. "Section 2485 in Title 13 of the CCR." https://www.arb.ca.gov/msprog/truck-idling/13ccr2485_09022016.pdf. Accessed November 2022.

45 CARB. *Final Regulation Order: Amendments to the Airborne Toxic Control Measure For Stationary Compression Ignition Engines*. May 19, 2011. <https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/finalreg2011.pdf>. Accessed November 2022.

46 CARB. *Final Regulation Order: Regulation For In-Use Off-Road Diesel-Fueled Fleets*. <https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation>. Accessed November 2022.

California Building Standards Code

California Energy Code

California's Energy Efficiency Standards for Residential and Nonresidential Buildings⁴⁷ were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 requires the design of building shells and components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The California Energy Commission (CEC) adopted the Title 24 standards as well as the 2019 Title 24 standards, which became effective on January 1, 2020, and are applicable to the Project.⁴⁸ The 2019 standards will continue to improve upon prior Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings.⁴⁹

California Green Building Code

The California Green Building Standards Code, which is Part 11 of the CCR, is commonly referred to as the CALGreen Code.⁵⁰ The most current version of the CALGreen building code went into effect in January 2023. The purpose is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, outdoor lighting standards, use and occupancy, location, and maintenance of all building and structures within its jurisdiction.

Regional and Local

South Coast Air Quality Management District

SCAQMD shares responsibility with CARB for ensuring that all State and federal AAQS are achieved and maintained over an area of approximately 10,743 square miles, including the Basin. This area includes all of Orange and Los Angeles counties except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

SCAQMD shares responsibility with CARB for ensuring that all State and federal ambient air quality standards are achieved and maintained over an area of approximately 10,743 square miles. This area includes the South Coast Air Basin and portions of the Salton Sea and Mojave Desert Air Basins, all of Orange County, and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. It does not include the Antelope Valley or the non-desert portion of western San Bernardino County.

47 California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>. Accessed November 2022.

48 See CEC "2019 Building Energy Efficiency Standards" for additional information.

49 See CEC "2019 Building Energy Efficiency Standards" for additional information.

50 California Buildings Standards Commission. "California Green Building Standards Code (Cal. Code Regs., Title 24, Part 11)." <http://www.bsc.ca.gov/Home/CALGreen.aspx>. Accessed November 2022.

SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the Air Basins. SCAQMD, in coordination with the SCAG, is also responsible for developing, updating, and implementing the AQMP for the Air Basins. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as “nonattainment” of the national and/or California ambient air quality standards. The term “nonattainment area” is used to refer to an air basin in which one or more ambient air quality standards are exceeded.

SCAQMD approved the 2016 AQMP on March 3, 2017. The 2016 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The AQMP also includes an update on the current air quality status of the SSAB. The Coachella Valley Planning Area, the desert portion of Riverside County in the SSAB, is designated as a nonattainment area for the federal 2008 and 1997 8-hour ozone standards, as well as the federal 2006 24-hour PM10 standard. The Coachella Valley monitored data also shows that it will meet the PM10 NAAQS, pending SCAQMD documentation submittal and subsequent USEPA approval of days flagged for high-wind exceptional events. However, USEPA has requested that SCAQMD conduct additional monitoring in the southeastern portion of the Coachella Valley before a re-designation can be considered.

The 2016 AQMP does not include new modeling efforts for PM10; since the mid-1990s, peak 24-hour average PM10 concentrations have not exceeded the current federal standard (150 µg/m³) other than on days with windblown dust from natural events, which can be excluded upon USEPA concurrence. Regardless, the USEPA has requested additional ambient monitoring prior to consideration of re-designation. With further implementation of cleaner technologies, the 2016 AQMP anticipates the Coachella Valley Planning area to be in attainment of the federal 1997 8-hour ozone standard by the end of 2018 and the 2008 8-hour ozone standard by 2023, as well as progress towards attainment of the 2015 8-hour ozone standard to be evaluated in a later AQMP. SCAQMD is currently working towards approval of the 2022 AQMP and has released a draft version of document.⁵¹

SCAQMD is responsible for limiting the amounts of emissions that can be generated throughout the Air Basins by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board, which limit the emissions that can be generated by various uses/activities and that identify specific pollution reduction measures, which must be implemented in association with various uses and activities. These rules not only regulate the emissions of the federal and State criteria pollutants, but also TACs and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

51 SCAQMD. “Air Quality Management Plan (AQMP).” <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>. Accessed November 2022.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust), Rule 403.1 (Supplemental Fugitive Dust Control Requirements For Coachella Valley Sources), and Rule 1113 (Architectural Coatings). Rule 403 requires the use of stringent best available control measures to minimize PM₁₀ emissions during grading and construction activities. Rule 403.1 requires active operations within a Blow sand Zone to stabilize new man-made deposits of bulk material, as well as requires a fugitive dust control plan for construction projects. Rule 1113 requires reductions in the VOC content of coatings, with a substantial reduction in the VOC content limit for flat coatings to 50 grams per liter (g/L).⁵² Additional details regarding these rules and other potentially applicable rules are presented as follows.

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement Best Available Control Measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. This may include application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites. SCAQMD Rule 403 is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

Rule 403.1 (Supplemental Fugitive Dust Control Requirements For Coachella Valley Sources). This rule requires the reduction or prevention of the amount of PM₁₀ emitted in the ambient air from man-made fugitive dust sources. The provisions of this rule are supplemental to Rule 403 and apply only to fugitive dust sources in the Coachella Valley. In addition, this rule requires a fugitive dust control plan for construction projects with a disturbed surface area of more than 5,000 square feet.

Rule 1113 (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.

Rule 1121 (Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters). This rule prescribes NO_x emission limits for natural gas-fired water heaters with heat input rates less than 75,000 British Thermal Unit (BTU) per hour. It applies to manufacturers, distributors, retailers, and installers of natural gas-fired water heaters. In lieu of meeting these NO_x limits, this rule allows emission mitigation fees to be collected from water heater manufacturers to fund stationary and mobile source emission reduction projects targeted at offsetting NO_x emissions from water heaters that do not meet Rule 1121 emission standards.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators

⁵² SCAQMD. Rule 1113 Architectural Coating (amended September 6, 2013).

of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters, as defined in this rule.

Rule 1186 (PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amounts of stationary emissions being generated and uses this information in developing AQMPs. The Project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts.

Coachella Valley PM₁₀ State Implementation Plan

The 2003 PM₁₀ Coachella Valley State Implementation Plan (CVSIP) was jointly developed by the SCAQMD, Coachella Valley Association of Governments (CVAG) and its member cities, and was approved by the USEPA. The 2003 PM₁₀ CVSIP updated the 1990 plan, which was drafted as a requirement of the federal Clean Air Act to demonstrate expeditious attainment of PM₁₀ standards.⁵³ On April 18, 2003, the USEPA approved the updated CVSIP.

Historically, PM₁₀ levels in the Coachella Valley are elevated due to fugitive dust emission from grading and construction activities, agricultural practices, and strong wind. The finer materials, including sand and silt, can be picked up and transported by the wind and are referred to as "blowsand." PM₁₀ particles associated with blowsand are of two types: (1) natural PM₁₀ produced by direct particle erosion and fragmentation, and (2) secondary PM₁₀ whereby sand deposited on roadways is further pulverized by motor vehicles and then re-suspended in the air by those vehicles. The Project area is located in a PM₁₀ non-attainment area for the State and federal PM₁₀ standards.

The Coachella Valley was eligible for redesignation as attainment in 2009-2010 due to the annual average PM₁₀ concentrations meeting the revoked federal standard. On February 25, 2010, the California Air Resources Board approved the Coachella Valley PM₁₀ Redesignation Request and Maintenance Plan from serious non-attainment to attainment for the PM₁₀ National Ambient Air Quality Standard under Federal CAA Section 107. However, the Coachella Valley began exceeding thresholds for PM₁₀ shortly after the redesignation request and continues to exceed thresholds today. The Coachella Valley continues to be in non-attainment for PM₁₀.

53 SCAQMD. *Final 2003 Coachella Valley PM₁₀ State Implementation Plan*. August 1, 2003. <https://www.aqmd.gov/docs/default-source/clean-air-plans/pm10-plans/final-2003-coachella-valley-pm10-state-implementation-plan.pdf?sfvrsn=2>. Accessed November 2022.

SCAQMD employs measures to reduce particulate matter in the basin, sets forth new measures that could further reduce particulate matter, and lists those new measures that need further evaluation prior to implementation. In addition, applicable State code and AQMD Rules, including Rule 403 (Fugitive Dust), enforce fugitive dust compliance for all activities within the SSAB.

SCAQMD Air Quality Analysis Guidance Handbook

In 1993, SCAQMD prepared its *CEQA Air Quality Handbook* to assist local government agencies and consultants in preparing environmental documents for projects subject to CEQA.⁵⁴ However, SCAQMD is in the process of developing its *Air Quality Analysis Guidance Handbook* to replace the *CEQA Handbook*. The *CEQA Handbook* and the *Air Quality Analysis Guidance Handbook* describe the criteria that SCAQMD uses when reviewing and commenting on the adequacy of environmental documents. The *Air Quality Analysis Guidance Handbook* provides the most up-to-date recommended thresholds of significance in order to determine if a project will have a significant adverse environmental impact. Other important subjects covered in the *CEQA Handbook* and the *Air Quality Analysis Guidance Handbook* include methodologies for estimating project emissions and mitigation measures that can be implemented to avoid or reduce air quality impacts. Although the Governing Board of SCAQMD has adopted the *CEQA Handbook* and is in the process of developing the *Air Quality Analysis Guidance Handbook*, SCAQMD does not, nor does it intend to, supersede a local jurisdiction's CEQA procedures.⁵⁵

While the *Air Quality Analysis Guidance Handbook* is being developed, supplemental information has been adopted by SCAQMD. These include revisions to the air quality significance thresholds and a procedure referred to as “localized significance thresholds,” which has been added as a significance threshold under the Local Significance Threshold (LST) Methodology.⁵⁶ The applicable portions of the *CEQA Handbook*, the *Air Quality Analysis Guidance Handbook*, and other revised methodologies were used in preparing the air quality analysis in this Section, as discussed and referenced later in this Section.

Southern California Association of Governments (SCAG)

SCAG is the metropolitan planning organization (MPO) for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and serves as a forum for the discussion of regional issues related to transportation, the economy, community development, and the environment. As the federally-designated MPO for the Southern California region, SCAG is mandated by the federal government to research and develop plans for transportation, hazardous waste management, and air quality. Pursuant to California

54 SCAQMD. “Air Quality Analysis Guidance Handbook.” 2010. <http://www.aqmd.gov/CEQA/hdbk.html>. Accessed November 2022.

55 SCAQMD. “Frequently Asked CEQA Questions.” <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/frequently-asked-questions>. Accessed November 2022.

56 SCAQMD. *Final Localized Significance Threshold Methodology*. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>. Accessed November 2022.

Health and Safety Code Section 40460(b),⁵⁷ SCAG has the responsibility for preparing and approving the portions of the AQMP relating to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is also responsible under the CAA for determining conformity of transportation projects, plans, and programs with applicable air quality plans.

With regard to air quality planning, SCAG has prepared and adopted the 2020-2045 RTP/SCS,⁵⁸ which includes a SCS that addresses regional development and growth forecasts. The SCAG 2020-2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, with a specific goal of achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 19 percent reduction by 2035, and 21 percent reduction by 2040, all compared to the 2005 level. Although the RTP/SCS is not technically an air quality plan, consistency with the RTP/SCS has air quality implications, including the reduction of VMT which reduces air quality emissions.

City of Indio General Plan

Local governments have the authority and responsibility to reduce air pollution through their police power and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures, as outlined in the AQMP.⁵⁹ The AQMP assigns local governments certain responsibilities to assist the Basin in meeting air quality goals and policies. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality for the preservation and enhancement of regional air quality for the protection of the health and welfare of the community as a whole.

The Health and Equity chapter of the City's General Plan⁶⁰ was prepared to meet the requirements California adopted with Senate Bill 1000 (SB 1000), or the Planning for Healthy Communities Act. SB 1000 requires cities to develop an Environmental Justice element, or related environmental justice goals and policies, to reduce the unique or compounded health risks in "disadvantaged communities." Elements may address the reduction of pollution exposure, the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity in disadvantaged communities. The Health and Equity chapter includes the following policies related to air quality:

57 California Health and Safety Code. Division 26. Air Resources, PART 3. Air Pollution Control Districts. "Chapter 5.5. South Coast Air Quality Management District." ARTICLE 5. Plan, Section 40460(b). <https://law.justia.com/codes/california/2014/code-hsc/division-26/part-3/chapter-5.5>. Accessed November 2022.

58 Southern California Association of Governments (SCAG). "Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies Draft." <https://www.connectsocial.org/Pages/Connect-SoCal-Draft-Plan.aspx>. Accessed November 2022.

59 SCAQMD. *CEQA Air Quality Handbook*. April 2003. p. 2-2.

60 City of Indio. *General Plan*. "Chapter 6. Health and Equity." <https://www.indio.org/home/showpublisheddocument/900/637874287840870000>. Accessed November 2022.

- **Policy HE-3.1: Regional air quality planning efforts.** Participate in air quality planning efforts with local, regional, and State agencies that improve local air quality to protect human health and minimize the disproportionate impacts on sensitive population groups.
- **Policy HE-3.2: Contaminated sites.** Continue to work with the appropriate local, State, and federal agencies to promote the clean-up of contaminated sites to protect human health.
- **Policy HE-3.3: Construction pollution.** Reduce particulate emissions from paved and unpaved roads, construction activities, and agricultural operations.
- **Policy HE-3.4: Sensitive-receptor uses.** Discourage development of sensitive land uses - defined as schools, hospitals, residences, and elder and childcare facilities - near air pollution sources that pose health risks - including freeways and polluting industrial sites.
- **Policy HE-3.5: Truck routes.** Designate truck routes to avoid sensitive land uses, where feasible.
- **Policy HE-3.6: Smoke-free.** Encourage smoke-free and Vape-free workplaces, multi-family housing, parks, and other outdoor gathering places to reduce exposure to second-hand smoke.
- **Policy HE-3.7: Public education.** Provide educational information about air quality issues and their health effects, including best practices for reducing and/or eliminating sources of indoor air pollution.
- **Policy HE-3.8: Sensitive receptors and agricultural operations.** When new sensitive receptors are proposed adjacent to existing active agricultural operations, ensure that an appropriate buffer is provided to minimize adverse impacts and that future residents will be provided with a notice specifying the potential nuisances, such as dirt, noise, odors, and slow moving agricultural machinery that would be associated with the agricultural operations.
- **Policy HE-3.9: Agricultural outreach.** Work with the agricultural community to develop and distribute an informational brochure regarding best practices to reduce or eliminate surface and groundwater contamination, reduce particulate emissions from agricultural operations, minimize soil erosion, and prevent the buildup of salts in soils.
- **Policy HE-3.10: Lower-emission fuel technologies.** Support collaboration between State, regional, and local agencies to continue transitioning goods movement and transit vehicles to lower-emission fuel technologies in order to reduce vehicle air pollution.

City of Indio Municipal Code

The City of Indio Municipal Code (IMC)⁶¹ includes the following provision which would be applicable to the Project:

Section 152.01. Duty to Control Dust

No person, firm, or corporation shall disturb the surface of the soil upon any land within the city for the purpose of excavation, grading, or building construction without first providing the adequate dust control upon the site as follows:

- A. It shall be the duty of any person, firm or corporation to provide water trucks in sufficient numbers to maintain a stable soil surface, free from blowing dust and sand during the duration of the grading work.

⁶¹ City of Indio Municipal Code. https://codelibrary.amlegal.com/codes/indio/latest/indio_ca/0-0-0-28960. Accessed November 2022.

- B. Upon completion of the grading work the surface shall be treated or stabilized in the following manner acceptable to the city:
1. A portable sprinkler system installed and maintained in operation until the surface of the soil has been found to be permanently stabilized.
 2. Planting of grass or other ground cover acceptable to the city and continuously watered until such grass or ground cover has reached a sufficient height and density to maintain the soil; and/or
 3. The contiguous operation of water trucks to keep the soil wet and stable. A soil bonding agent may be required for sandy soils.
- C. It shall be the duty of any person, firm or corporation engaged in any construction which requires a permit from the city to provide for the control of dust until all construction has been completed and the surface of the soil has been found to be permanently stabilized. The dust control shall be provided as follows:
1. A portable sprinkler system shall be installed and maintained operable around the perimeter of the construction site.
 2. Either water trucks or additional sprinkler systems shall be operated through the interior of the construction site including streets and utility excavations.
 3. Dust control means as specified in division (C)(1) and (2) shall be maintained operable at all times throughout the duration of the construction project until the surface of the soil has been found to be permanently stabilized and acceptable to the city.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of Air Quality emissions impacts (Appendix G of the CEQA Guidelines), which are being used by the City for this analysis. Appendix G provides that a project would have a significant environmental impact if it would:

- Threshold 5.2-1: Conflict with or obstruct implementation of the applicable air quality plan?**
Threshold 5.2-2: 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?
Threshold 5.2-3: Expose sensitive receptors to substantial pollutant concentrations?
Threshold 5.2-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to assist in making these determinations. As the City has not adopted specific Citywide significance thresholds for air quality impacts, the thresholds and methodologies contained in the SCAQMD *CEQA Air Quality Handbook* (Handbook) for both construction and operational emissions are utilized for evaluating projects in the City. These thresholds are described below.

Construction Emission Thresholds

The Project will have a significant impact if it exceeds the construction thresholds listed in **Table 5.2-4: Construction Thresholds**.

**TABLE 5.2-4
CONSTRUCTION THRESHOLDS**

Pollutant	Construction Emissions (pounds/day)
Volatile organic compounds (VOCs)	75
Nitrogen dioxide (NO ₂)	100
Carbon monoxide (CO)	550
Sulfur dioxide (SO ₂)	150
Respirable particulate matter (PM ₁₀)	150
Fine particulate matter (PM _{2.5})	55

Operation Emission Thresholds

Based on the SCAQMD Handbook, thresholds for each criteria pollutant for the operations of the Project are provided in **Table 5.2-5: Operational Thresholds**.

**TABLE 5.2-5
OPERATIONAL THRESHOLDS**

Pollutant	Operational Emissions (pounds/day)
Volatile organic compounds (VOCs)	55
Nitrogen dioxide (NO ₂)	55
Carbon monoxide (CO)	550
Sulfur dioxide (SO ₂)	150
Respirable particulate matter (PM ₁₀)	150
Fine particulate matter (PM _{2.5})	55

Construction and Operational Localized Significance Thresholds

The local significance thresholds are based on the SCAQMD's Final Localized Significance Threshold (LST) Methodology (LST Methodology)⁶² guidance document for short-duration construction activities. The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project Site because of construction activities. The SCAQMD provides voluntary guidance on the evaluation of localized air quality impacts to public agencies conducting environmental review of projects located within its jurisdiction. Localized air quality impacts are evaluated by examining the on-site generation of pollutants and their resulting downwind concentrations. For

⁶² SCAQMD. *Final Localized Significance Threshold (LST) Methodology*. June 2003, rev. July 2008.

construction, pollutant concentrations are compared to significance thresholds for particulates (PM10 and PM2.5), CO, and NO2. The significance threshold for PM10 represents compliance with SCAQMD Rule 403 (Fugitive Dust). The threshold for PM2.5 is designed to limit emissions and to allow progress toward attainment of the AAQS. Thresholds for CO and NO2 represent the allowable increase in concentrations above background levels that would not cause or contribute to an exceedance of their respective AAQS.

Toxic Air Contaminants

As set forth in the SCAQMD Handbook, the determination of significance of a project with respect TACs shall be made on a case-by-case basis, considering the following factors:

- Regulatory framework for toxic materials and process involved;
- Proximity of TACs to sensitive receptors;
- Quantity, volume, and toxicity of the contaminants expected to be emitted;
- Likelihood and potential level of exposure; and
- Degree to which project design will reduce risk of exposure.

Consistency with Applicable Air Quality Plans

Section 15125 of the State CEQA Guidelines requires an analysis of project consistency with applicable governmental plans and policies. In accordance with the SCAQMD Handbook, the following criteria were used to evaluate the Project's consistency with SCAQMD and SCAG regional plans and policies, including the AQMP:

- Will the Project result in any of the following:
 - Increase the frequency or severity of existing air quality violations?
 - Cause or contribute to new air quality violations?
 - Delay the timely attainment of the air quality standards or the interim emission reductions specified in the AQMP?
- Will the Project exceed the assumptions utilized in preparing the AQMP?
- Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based?
- Does the Project include air quality mitigation measures?
- To what extent is Project development consistent with the AQMP land use policies?

Cumulative Threshold

SCAQMD recommends that a project be considered to result in a cumulatively considerable impact to air quality if any construction-related emissions and operational emissions from individual development projects exceed the mass daily emissions thresholds for individual projects.⁶³

The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

A project is also considered to result in a cumulatively considerable contribution to significant impacts if the population and employment projections for the project exceed the rate of growth defined in SCAQMD's AQMP.

Methodology

The California Emissions Estimator Model, known as CalEEMod, is the CARB-approved computer program model recommended by SCAQMD for use in the quantification of air quality emissions. CalEEMod was developed under the auspices of SCAQMD, with input from other California air districts. CalEEMod utilizes widely accepted models for emissions estimates combined with appropriate data that can be used if site-specific information is not available. For example, CalEEMod incorporates USEPA-developed emission factors; CARB's on-road and off-road equipment emission models, such as EMFAC and OFFROAD;⁶⁴ and studies commissioned by other California agencies, such as the California Energy Commission and California Department of Resources Recycling and Recovery (CalRecycle).

CalEEMod provides a platform to calculate both construction emissions and operational emissions from a land use development project. CalEEMod version 2020.4.0 was used to quantify the Project's air quality pollutants. Project development would generate air pollutants from a number of individual sources during both construction and post-construction (operational) use of the proposed uses and related activities (e.g., painting operations and landscape maintenance). The following emission sources covered by CalEEMod model include:

- One-time construction emissions associated with site clearing, grading, construction of the retaining walls, utilities, buildings, street improvements, and landscaping. Emission sources include both off-road construction equipment and on-road mobile equipment associated with workers and the delivery of construction materials to the Project Site. Construction emissions associated with dust control are also included in the CalEEMod model.
- Operational emissions associated with the proposed uses, including on-road mobile vehicle traffic generated by the land uses; off-road emissions from landscaping equipment; energy (i.e., electricity

63 SCAQMD. Board meeting, Agenda No. 29. "White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions." September 5, 2003. Appendix D, p. D-3.

64 EMFAC is an emissions factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles). OFFROAD is an emissions factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment). CalEEMod version 2020.4.0 utilizes CARB's 2017 version of EMFAC.

and natural gas) and water usage in the buildings; and emissions from area sources such as painting operations. The disposal of solid waste generated during the post-construction use of the buildings is also included in the CalEEMod model.

Refer to **Section 3.0: Project Description** of this EIR for more detailed characteristics of the Project. Information needed to parameterize the Project in CalEEMod was obtained from the Project Applicant.

Construction Emissions

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil-disturbing activities. Exhaust emissions from construction activities on site would vary daily as construction activity levels change. Short-term emissions of criteria air pollutants (e.g., CO, SO_x, PM_{10} , and $PM_{2.5}$) generated by construction and ozone precursors (e.g., VOCs and NO_x) were assessed in accordance with SCAQMD-recommended methods. These emissions were modeled using the CARB-approved CalEEMod computer program, as recommended by SCAQMD.

Construction of the Project must comply with SCAQMD Rules Rule 201, Rule 402, Rule 403, Rule 1113, Rule 1186, and Rule 1403, which are mandatory for all construction projects in SCAQMD jurisdiction within SSAB. The emission calculations take into account comply with Rule 403 by incorporating the watering of exposed surfaces and unpaved roads three times daily, reducing speed on unpaved roads to less than 15 mph, and sweeping loose dirt from access roadways. CalEEMod also incorporates Rule 1113 by reducing the VOC content in the area coatings to 50 grams per liter.

Construction activities would last approximately 96 months beginning March 2024 and ending March 2032. The first 6 months of construction would include mass grading of the entire site and off-site street improvements. The remainder of the construction timeline includes construction of the proposed homes which would be broken down into approximately 80 to 100 phases. Each phase would include the development of 14 to 20 homes over approximately 3 acres per phase. Each phase would last approximately 8 months and include precise grading of the 3-acre area, building construction of the homes, paving of streets and driveways, and finishings (architectural coatings, landscaping, etc.). These activities may occur concurrently as multiple phases reach different stages of development.

Each construction activity would result in varying levels of intensity and the number of construction personnel. Mass grading and off-site paving would require up to 450,000 cubic yards of soil import with up to 300 haul trucks trips and 30 workers per day. Precise grading would require up to 8 workers per day. Building construction would require up to 125 workers and 20 vendors per day. On-site paving would require up to 25 workers and 5 vendors per day. Finishings would require up to 35 workers and 10 vendors per day.

Table 5.2-6: Project Construction Diesel Equipment Inventory displays the construction equipment required for each activity described above.

**TABLE 5.2-6
PROJECT CONSTRUCTION DIESEL EQUIPMENT INVENTORY**

Phase	Off-Road Equipment Type	Amount	Daily Hours	Horsepower [HP] (Load Factor)
Mass Grading/ Street Improvements	Graders	3	8	187 (0.41)
	Off-Highway Trucks	4	8	402 (0.38)
	Pumps	1	8	84 (0.74)
	Rubber Tired Dozers	3	8	247 (0.4)
	Scrapers	15	8	367 (0.48)
	Tractors/Loaders/Backhoes	3	8	97 (0.37)
	Pavers	2	8	130 (0.42)
	Paving Equipment	2	8	132 (0.36)
	Rollers	2	8	80 (0.38)
Precise Grading	Dumpers/Tenders	5	8	16 (0.38)
	Tractors/Loaders/Backhoes	2	8	97 (0.37)
Building Construction	Air Compressors	3	8	78 (0.48)
	Cement and Mortar Mixers	5	8	9 (0.56)
	Forklifts	2	8	89 (0.20)
	Generator Sets	2	8	84 (0.74)
	Off-Highway Trucks	2	8	402 (0.38)
Paving	Cement and Mortar Mixers	5	8	9 0.56)
	Graders	2	8	187 (0.41)
	Off-Highway Trucks	2	8	402 (0.38)
	Paving Equipment	1	8	132 (0.36)
	Plate Compactors	1	8	8 (0.43)
	Rollers	2	8	80 (0.38)
	Tractors/Loaders/Backhoes	2	8	97 (0.37)
Finishings	Air compressors	3	6	78 (0.48)

Refer to Appendix D for air quality data.

Operational Emissions

Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses that would be permitted by the Project. Source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. The Project is expected to generate approximately 6,470 daily trips.⁶⁵

Project-generated, regional area and mobile-source emissions of criteria air pollutants and ozone precursors were also modeled using the CalEEMod computer program. CalEEMod allows land use

⁶⁵ Fehr and Peers. *Desert Retreat Specific Plan Project Transportation Study*. November 2022. See Appendix K.

selections that include project location specifics and trip generation rates. CalEEMod accounts for area-source emissions from the use of natural gas, landscape maintenance equipment, consumer products, and from mobile-source emissions associated with vehicle trip generation.

Project Impacts

Threshold 5.2-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Consistency with AQMP

A consistency determination with regard to the SCAQMD's AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. In accordance with the procedures established in the SCAQMD's *CEQA Air Quality Handbook*,⁶⁶ the analysis below addresses the following criteria identified by the SCAQMD to determine the proposed Project's consistency with SCAQMD and SCAG air quality related policies.

- Will the project result in any of the following:
 - Increase the frequency or severity of existing air quality violations?
 - Cause or contribute to new air quality violations?

According to the SCAQMD's *CEQA Handbook*, the consistency determination based on the first criterion pertains to ambient pollutant concentrations rather than to total regional emissions, thus requiring an analysis of the Project's pollutant emissions relative to localized pollutant concentrations.⁶⁷ A complete review of the proposed Project's potential impact on ambient pollutant concentrations during construction and operation is provided below.

Regional Construction

It is mandatory for all construction projects in SSAB to comply with SCAQMD Rule 403 for fugitive dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. In addition, SCAQMD Rule 1113 would limit the VOC content of architectural coatings. Thus, compliance with these SCAQMD rules is incorporated into the analysis provided below.

As discussed previously, the first 6 months of construction would include mass grading of the entire site and off-site street improvements. The maximum daily regional construction emissions associated with

⁶⁶ SCAQMD. *CEQA Air Quality Handbook*. April 1993. p. 12-3.

⁶⁷ SCAQMD. *CEQA Air Quality Handbook*. April 1993. p. 12-3.

these activities are provided in **Table 5.2-7: Unmitigated Regional Mass Grading Emissions**. As shown, the daily maximum emissions would not exceed the SCAQMD daily significance thresholds for VOC, CO, SO_x, PM₁₀, or PM_{2.5}. However, emissions would result in an exceedance of daily NO_x emissions.

TABLE 5.2-7 UNMITIGATED REGIONAL MASS GRADING EMISSIONS						
Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Maximum Emissions	19	216	152	1	27	13
SCAQMD Mass Daily Threshold	75	100	550	150	150	55
Threshold exceeded?	No	YES	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to **Appendix D** for air quality data.

The remainder of the construction timeline includes construction of the proposed homes, which would be broken down into approximately 80 to 100 phases. Each phase would include precise grading of approximately 3 acres, building construction of the homes, paving of streets and driveways, and finishings (architectural coatings, landscaping, etc.). The maximum daily regional construction emissions associated with these activities are provided in **Table 5.2-8: Unmitigated Regional Phase Emissions**. As these activities may occur concurrently, this analysis compares the total emissions of these activities to SCAQMD thresholds. As shown, the daily maximum emissions would not exceed the SCAQMD daily significance thresholds for VOC, NO_x, CO, SO_x, PM₁₀, or PM_{2.5}.

TABLE 5.2-8 UNMITIGATED REGIONAL PHASE EMISSIONS						
Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Precise Grading	1	5	5	<1	<1	<1
Building Construction	3	21	28	<1	2	1
On-Site Paving	3	22	23	<1	1	1
Finishings	4	4	6	<1	<1	<1
Total Maximum Emissions	10	51	63	<1	4	2
SCAQMD Mass Daily Threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to **Appendix D** for air quality data.

As shown in **Table 5.2-7** above, the construction emissions from mass grading and off-site street improvements would result in an exceedance of daily NO_x emissions. Therefore, the daily regional impact of NO_x emissions would be considered a potentially significant impact.

Off-road diesel vehicles, which includes construction equipment, are regulated by the CARB for both in-use (existing) and new engines. CARB has set standards for four tiers of new off-road diesel engines. Tier 1 standards began in 1996. Tiers 2 and 3 were adopted in 2000 and were more stringent than the Tier 1 standards. Tier 2 and Tier 3 standards were completely phased in by 2006 and 2008, respectively. Tier 4 standards became effective in 2011. Tier 4 emission standards significantly reduce PM and NO_x emissions. Implementation of **Mitigation Measure (MM) MM AQ-1** would require the on-site construction equipment fleet to meet EPA Tier 4 Final standards for all off-road diesel-powered construction equipment greater than 50 horsepower (hp) and would require all construction equipment to be outfitted with BACT devices certified by CARB. The emission levels in **Table 5.2-9: Mitigated Regional Mass Grading Emissions** represent the maximum daily emissions projected to occur during mass grading with implementation of **MM AQ-1**. As presented in **Table 5.2-9**, the mitigated daily maximum regional construction emissions would not exceed any of the SCAQMD thresholds. Therefore, regional construction emissions would result in a less than significant short-term air quality impact during construction with mitigation.

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Unmitigated Maximum Emissions	19	216	152	1	27	13
Mitigated Maximum Emissions	5	56	185	1	20	7
<i>SCAQMD Mass Daily Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to **Appendix D** for air quality data.

Regional Operation

On-road mobile vehicles, electricity, natural gas, water, landscape equipment, solid waste, and wastewater would generate the majority of emissions on-site during Project operation. The Project is expected to generate approximately 6,470 daily trips.⁶⁸ The maximum daily regional operational emissions are provided in **Table 5.2-10: Unmitigated Maximum Regional Operational Emissions**. As shown in **Table 5.2-10**, operational emission levels would not exceed the SCAQMD daily regional thresholds and, as such, would result in less than significant operational impacts.

68 Fehr and Peers. *Desert Retreat Specific Plan Project Transportation Study*. November 2022. See **Appendix K**.

**TABLE 5.2-10
UNMITIGATED MAXIMUM REGIONAL OPERATIONAL EMISSIONS**

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Area	36	1	123	<1	1	1
Energy	1	6	2	<1	<1	<1
Mobile	13	14	110	<1	31	8
Total	50	21	236	<1	32	10
<i>SCAQMD Mass Daily Threshold</i>	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to Appendix D for air quality data.

Localized Emissions

Construction

As discussed previously, the first 6 months of construction would include mass grading of the entire site and off-site street improvements. The LST Methodology provides lookup tables of emissions that are based on construction projects of up to 5 acres in size. Although the Project Site is larger than 5-acres, this analysis conservatively compares emissions from mass grading and off-site street improvements to the 5-acre localized thresholds for SRA 30, with sensitive receptors located within 25 meters of the Project Site.⁶⁹ The maximum localized construction emissions associated with these activities are provided in **Table 5.2-11: Unmitigated Localized Mass Grading Emissions**. As shown, the daily localized emissions would not exceed the SCAQMD daily significance thresholds for NO_x or CO. However, emissions would result in an exceedance of daily PM₁₀ and PM_{2.5} emissions.

**TABLE 5.2-11
UNMITIGATED LOCALIZED MASS GRADING EMISSIONS**

Source	NO _x	CO	PM ₁₀	PM _{2.5}
	On-Site Emissions (pounds/day)			
Mass Grading/Off-Site Street Improvements	170	127	19	10
<i>LST threshold</i>	304	2292	14	8
Threshold Exceeded?	No	No	Yes	Yes

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to Appendix D for air quality data.

⁶⁹ The off-road equipment assumed during mass grading would be capable of covering up to 19.5 acres per day per the CalEEMod User Guide. Therefore assuming 5-acre LSTs is considered conservative.

The remainder of the construction timeline includes construction of the proposed homes which would be broken down into approximately 80 to 100 phases. Each phase would include precise grading of approximately 3 acres, building construction of the homes, paving of streets and driveways, and finishings (architectural coatings, landscaping, etc.). As such, this analysis compares emissions from these activities to the 3-acre localized thresholds for SRA 30 with sensitive receptors located within 25 meters of the Project Site. The maximum localized construction emissions associated with these activities are provided in **Table 5.2-12: Unmitigated Localized Phase Emissions**. As shown, the daily localized emissions would not exceed the SCAQMD daily significance thresholds for NO_x, CO, PM₁₀ or PM_{2.5}.

TABLE 5.2-12 UNMITIGATED LOCALIZED PHASE EMISSIONS				
Source	NO _x	CO	PM ₁₀	PM _{2.5}
	On-Site Emissions (pounds/day)			
Precise Grading	1	5	<1	<1
Building Construction	3	20	1	1
On-Site Paving	22	22	1	1
Finishings	3	5	<1	<1
Maximum Localized Emissions	22	22	1	1
<i>LST threshold</i>	<i>223</i>	<i>1606</i>	<i>9</i>	<i>6</i>
Threshold Exceeded?	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to Appendix D for air quality data.

As shown in **Table 5.2-11** above, the localized construction emissions from mass grading and off-site street improvements would result in an exceedance of daily PM₁₀ and PM_{2.5} emissions. Therefore, the daily localized impact of PM₁₀ and PM_{2.5} emissions would be considered a potentially significant impact.

As discussed previously, **MM AQ-1** would require the on-site construction equipment fleet to meet EPA Tier 4 Final standards for all off-road diesel-powered construction equipment greater than 50 horsepower (hp) and would require all construction equipment to be outfitted with BACT devices certified by CARB. Tier 4 emission standards significantly reduce PM and NO_x emissions. The emission levels in **Table 5.2-13: Mitigated Localized Mass Grading Emissions** represent the localized daily emissions projected to occur during mass grading and off-site street improvements with implementation of **MM AQ-1**. As presented in **Table 5.2-13**, the mitigated localized construction emissions would not exceed any of the SCAQMD LSTs. Therefore, localized construction would result in a less than significant short-term air quality impact during construction with mitigation.

**TABLE 5.2-13
MITIGATED LOCALIZED MASS GRADING EMISSIONS**

Source	NO _x	CO	PM ₁₀	PM _{2.5}
	On-Site Emissions (pounds/day)			
Unmitigated Mass Grading/Off-Site Street Improvements	170	127	19	10
Mitigated Mass Grading/Off-Site Street Improvements	18	158	13	5
<i>LST threshold</i>	304	2,292	14	8
Threshold Exceeded?	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to Appendix D for air quality data.

Operation

Local emissions from Project operation would include area and energy sources. Area-source emissions are based on natural gas (building heating and water heaters), landscaping equipment, and consumer product (including paint) usage rates provided in CalEEMod. Natural gas usage factors in CalEEMod are based on the CEC's California Commercial End Use Survey data set, which provides energy demand by building type and climate zone. LST thresholds for a 5-acre site in SRA 30 were conservatively used to analyze localized operational emissions.⁷⁰ The results of the operational LST analysis are provided in **Table 5.2-14: Unmitigated Localized Operational Emissions**. As shown in **Table 5.2-14**, emissions would not exceed the localized significance thresholds for operation. Therefore, localized operational impacts would be less than significant.

**TABLE 5.2-14
UNMITIGATED LOCALIZED OPERATIONAL EMISSIONS**

Source	NO _x	CO	PM ₁₀	PM _{2.5}
	On-Site Emissions (pounds/day)			
Area	1	123	1	1
Energy	6	2	0	0
Total	7	126	1	1
<i>LST threshold</i>	304	2292	4	2
Threshold Exceeded?	No	No	No	No

Source: CalEEMod.

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compounds.

Refer to Appendix D for air quality data.

⁷⁰ This is considered conservative as operational emissions from stationary and mobile sources would be generated throughout the Project Site at one time during operation.

Since SCAQMD staff does not currently know of a way to accurately quantify health impacts caused by criteria pollutant emissions, though a general description of the adverse health impacts resulting from the pollutants at issue is the extent of what can be provided at this time. As outlined previously in the description of general adverse health impacts resulting from criteria pollutants (refer to subheading **Criteria Air Pollutants and Health Effects** of this section), the criteria air pollutants that are most relevant to current air quality planning and regulation in the SSAB include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb). In addition, volatile organic compounds (VOC) and toxic air contaminants (TACs) are a concern in the SSAB but are not classified under AAQS.

In accordance with the procedures established in the SCAQMD's *CEQA Air Quality Handbook*,⁷¹ the analysis below addresses the following criteria identified by the SCAQMD to determine the proposed Project's consistency with SCAQMD and SCAG air quality related policies:

- Delay the timely attainment of the air quality standards or the interim emission reductions specified in the AQMP?

As shown in **Table 5.2-7** above, regional construction emissions of NO_x would result in potentially significant short-term air quality impacts without mitigation. As shown in **Table 5.2-9**, with implementation of **MM AQ-1**, the projected emissions from the Project will not exceed the SCAQMD significance thresholds. As shown in **Table 5.2-11** above, localized construction emissions of PM₁₀ and PM_{2.5} would result in potentially significant short-term air quality impacts without mitigation. As shown in **Table 5.2-13**, with implementation of **MM AQ-1**, the projected emissions from the Project will not exceed the SCAQMD localized significance thresholds. Moreover, emissions of criteria pollutants would not exceed the regional operational or localized operational SCAQMD thresholds. Thus, the Project would not exceed any of the State and federal air quality standards and, therefore, results in less than significant health-related impacts with mitigation. The Project would not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP and would, therefore, be consistent with this criterion.

- Will the project exceed the assumptions utilized in preparing the AQMP?

Determining whether the proposed Project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with the population, housing, and employment growth projections; (2) the inclusion of mitigation measures; and (3) the appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis of each of these three criteria.

- Is the project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based?

71 SCAQMD. *CEQA Air Quality Handbook*. April 1993. p. 12-3.

With respect to the first criterion for determining consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016-2040 RTP/SCS regarding population, housing, and employment growth. A project is consistent with the AQMP, in part, if it is consistent with the population, housing, and employment growth assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, SCAG's 2016-2040 RTP/SCS form the basis of the projections of air pollutant emissions.

As discussed in **Section 5.11: Population and Housing**, the Project is expected to result in an increase of approximately 2,700 residents. According to the growth estimates from SCAG's 2016-2040 RTP/SCS, which as stated above form the basis for the growth forecast of the AQMP, the City had an estimated population of 78,800 people in 2012 and is projected to have a population of 123,300 in 2040.⁷² The addition of 2,700 people generated by the Project would be approximately 6 percent of the SCAG's 2016-2040 population increase forecast for the City. Such levels of growth are consistent with the population forecasts for the subregion, as adopted by SCAG. The Project is also consistent with the types, intensity, and patterns of land use envisioned for this region. Because SCAG's projections form the basis of the 2016 AQMP, it can be concluded that the Project would be consistent with the demographic projections incorporated into the AQMP and is consistent with this criterion.

- Does the project include air quality mitigation measures?

Implementation of **MM AQ-1** would require the on-site construction equipment fleet to meet EPA Tier 4 Final standards for all off-road diesel-powered construction equipment greater than 50 horsepower (hp) and would require all construction equipment to be outfitted with BACT devices certified by CARB. As shown in **Table 5.2-9** and **Table 5.2-13** above, implementation of **MM AQ-1** would reduce construction emissions to be below SCAQMD's significance thresholds.

- To what extent is project development consistent with the AQMP land use policies?

The determination of AQMP consistency is primarily concerned with the long-term influence of the proposed Project on air quality in the Basin. The Project would not have a significant long-term impact on the region's ability to meet State and federal air quality standards. The Project would comply with all applicable SCAQMD rules and regulations and would implement feasible mitigation measures to reduce air pollutant concentrations to levels that are below State and federal ambient air quality standards. Thus, the Project's long-term influence on air quality would be consistent with the goals and policies of the AQMP and is, therefore, considered consistent with this criterion.

72 SCAG. *Demographics and Growth Forecast Technical Report*. Adopted September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscsc_demographicgrowthforecast.pdf?1606073557. Accessed November 2022.

Consistency with 2020 - 2045 RTP/SCS

SCAG has prepared and adopted the 2020-2045 RTP/SCS,⁷³ which includes a SCS that addresses regional development and growth forecasts. The SCAG 2020-2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, and establishes a specific goal of achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 19 percent reduction by 2035, and 21 percent reduction by 2040, all compared to the 2005 level. Although the 2020-2045 RTP/SCS is not technically an air quality plan, consistency with the 2020-2045 RTP/SCS has air quality implications, including the reduction of VMT which reduces air quality emissions.

As discussed in **Section 5.11: Population and Housing**, the Project is expected to result in an increase of approximately 2,700 residents. According to the growth estimates from SCAG's 2020-2045 RTP/SCS, the City had an estimated population of 88,100 people in 2016 and is projected to have a population of 129,300 in 2045.⁷⁴ The addition of 2,700 people generated by the Project would be approximately 7 percent of the SCAG's 2020-2045 population increase forecast for the City.

As part of its vision, the 2020-2045 RTP/SCS includes Connect SoCal.⁷⁵ Connect SoCal charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporates best practices for achieving the State-mandated reductions in GHG emissions at the regional level through reduced per-capita VMT. These strategies would also serve to reduce air quality emissions and identify how the SCAG region can implement Connect SoCal to achieve these reductions. SCAG works to support local jurisdictions and partnerships by identifying ways to implement the SCS in a way that fits the vision and needs of each local community.

The following Connect SoCal strategies are intended to be supportive of implementing the regional SCS and are applicable to the proposed Project:

- **Focus Growth Near Destinations & Mobility Options**
 - Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations.

73 SCAG. *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies Final Plan*. <https://www.connectsocial.org/Pages/Connect-SoCal-Final-Plan.aspx>. Accessed November 2022.

74 SCAG. *Demographics and Growth Forecast Technical Report*. Adopted September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579. Accessed November 2022.

75 SCAG. *Connect SoCal, The 2020-2045 Regional Transportation Plan/Sustainable Community Strategy of the Southern California Association of Governments*. <https://www.connectsocial.org/Pages/Connect-SoCal-Final-Plan.aspx>, Accessed November 2022.

- Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods.
- Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations).
- **Promote Diverse Housing Choices**
 - Preserve and rehabilitate affordable housing and prevent displacement.

The Project would develop 1,500 age-restricted (Age 55+) single-family homes on vacant land located adjacent to existing single-family neighborhoods, including similar age-restricted residential communities immediately east and south of the Project Site. The Project would not result in displacement of existing affordable housing. Transit is provided by Sun Line Transit Agency (SLTA), which is the regional transit provider for Riverside County. Currently, Sun Line Transit operates a variety of bus routes in Indio. The closest bus stop to the Project Site, served by Route 8, is located near the Walmart Supercenter on the corner of Showcase Parkway and Monroe Street, approximately 2.6 miles away. Although there are no nearby transit stops to the Project Site, the Project encourages multimodal transportation by including bicycle paths, pedestrian paseos, and sidewalks within the community. Adjacent to the Project Site is an existing Class I bicycle path on Jefferson Street between Avenue 38 and Avenue 39, Class II bicycle lanes on Avenue 38 between Dune Palms Road and Madison Street, and Class II bicycle lanes on Avenue 40 between Jefferson Street and Monroe Street. The City’s General Plan proposes a Class I bicycle path on Jefferson Street between Avenue 38 and Varner Road and Class II bicycle lanes on Avenue 40 between Fifties Way and Monroe Street. Given the Project’s proximity to the Shadow Hills Golf Club, many of the adjacent bicycle facilities and pedestrian sidewalks are shared with golf carts. Additionally, the Project will construct sidewalks on all existing streets adjacent to the Project Site including Avenue 38, Madison Street, and Avenue 40.

As such, the Project would not conflict with the 2020-2045 RTP/SCS and impacts would be less than significant.

Consistency with Indio General Plan

As discussed previously, the Health and Equity chapter of the City’s General Plan⁷⁶ was prepared to meet the requirements California adopted with SB 1000, or the Planning for Healthy Communities Act. SB 1000 requires cities to develop an Environmental Justice element, or related environmental justice goals and policies, to reduce the unique or compounded health risks in “disadvantaged communities.” Elements may address the reduction of pollution exposure, the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity in disadvantaged communities. Project consistency with the air quality related policies from the Health and Equity chapter

76 City of Indio. *General Plan*. “Chapter 6. Health and Equity.” <https://www.indio.org/home/showpublisheddocument/900/637874287840870000>. Accessed November 2022.

is shown in **Table 5.2-15: Project Consistency with General Plan Air Quality Policies** below. As shown, the Project would not conflict with the General Plan air quality policies.

**TABLE 5.2-15
PROJECT CONSISTENCY WITH GENERAL PLAN AIR QUALITY POLICIES**

Measure	Applicability
Policy HE-3.1: Regional air quality planning efforts. Participate in air quality planning efforts with local, regional, and State agencies that improve local air quality to protect human health and minimize the disproportionate impacts on sensitive population groups.	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Policy HE-3.2: Contaminated sites. Continue to work with the appropriate local, State, and federal agencies to promote the clean-up of contaminated sites to protect human health.	Not Applicable. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Policy HE-3.3: Construction pollution. Reduce particulate emissions from paved and unpaved roads, construction activities, and agricultural operations.	No Conflict. As discussed previously, the proposed Project would comply with SCAQMD Rule 403 for fugitive dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Additionally, the Project would comply with Section 152.01 of the IMC which requires dust control measures during construction.
Policy HE-3.4: Sensitive-receptor uses. Discourage development of sensitive land uses - defined as schools, hospitals, residences, and elder and childcare facilities - near air pollution sources that pose health risks - including freeways and polluting industrial sites.	No Conflict. The Project would not place sensitive receptors near air pollution sources that may pose health risks. As discussed above, the Project's operational emissions would be below regional and local thresholds. Moreover, CARB suggests siting new sensitive land uses 500 feet or more from freeways and the nearest freeway is located over 4,000 feet from the Project Site.
Policy HE-3.5: Truck routes. Designate truck routes to avoid sensitive land uses, where feasible.	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Policy HE-3.6: Smoke-free. Encourage smoke-free and Vape-free workplaces, multi-family housing, parks, and other outdoor gathering places to reduce exposure to second-hand smoke.	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Policy HE-3.7: Public education. Provide educational information about air quality issues and their health effects, including best practices for reducing and/or eliminating sources of indoor air pollution.	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Policy HE-3.8: Sensitive receptors and agricultural operations. When new sensitive receptors are proposed adjacent to existing active agricultural operations, ensure that an appropriate buffer is provided to minimize adverse impacts and that future residents will be provided with a notice specifying the potential nuisances, such as dirt, noise, odors, and slow-moving agricultural machinery that would be associated with the agricultural operations.	No Conflict. There are no existing agricultural operations adjacent to the Project Site. As such the Project would not conflict with this policy.
Policy HE-3.9: Agricultural outreach. Work with the agricultural community to develop and distribute an informational brochure regarding best practices to reduce or eliminate surface and groundwater	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.

**TABLE 5.2-15
PROJECT CONSISTENCY WITH GENERAL PLAN AIR QUALITY POLICIES**

Measure	Applicability
contamination, reduce particulate emissions from agricultural operations, minimize soil erosion, and prevent the buildup of salts in soils.	
Policy HE-3.10: Lower-emission fuel technologies. Support collaboration between State, regional, and local agencies to continue transitioning goods movement and transit vehicles to lower-emission fuel technologies in order to reduce vehicle air pollution.	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.

Source: City of Indio, General Plan, Chapter 6. Health and Equity, <https://www.indio.org/home/showpublisheddocument/900/637874287840870000>. Accessed November 2022.

Threshold 5.2-2: 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?

According to SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed SCAQMD's recommended daily thresholds for project-specific impacts, then the project would also result in a cumulatively considerable net increase of these criteria pollutants. As shown in **Table 5.2-2**, the SSAB is currently nonattainment for federal and State O₃ and PM₁₀. By applying SCAQMD's cumulative air quality impact methodology, implementation of the Project would result in exceedance of regional NO_x emissions during construction (refer to **Table 5.2-7**). However, as shown in **Table 5.2-9**, regional emissions would be below SCAQMD thresholds with implementation of **MM AQ-1**. Moreover, as shown in **Table 5.2-10**, regional operational emissions would not exceed SCAQMD thresholds. As such, impacts would be less than significant with mitigation.

Threshold 5.2-3: Expose sensitive receptors to substantial pollutant concentrations?

As mentioned previously, the Project Site is predominately surrounded by residential uses and Shadow Hills High School. Per SCAQMD, these uses would be considered sensitive receptors. By applying SCAQMD's LST methodology, implementation of the Project would result in exceedance of localized PM₁₀ and PM_{2.5} emissions during construction (refer to **Table 5.2-11**). However, as shown in **Table 5.2-13**, localized emissions would be below SCAQMD thresholds with implementation of **MM AQ-1**. Moreover, as shown in **Table 5.2-14**, localized operational emissions would not exceed SCAQMD thresholds. As such, impacts would be less than significant with mitigation.

Threshold 5.2-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

According to the SCAQMD, “while almost any source may emit objectionable odors, some land uses will be more likely to produce odors...because of their operation.”⁷⁷ Land uses that are more likely to produce objectionable odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants.

Construction

During construction, activities associated with the operation of construction equipment, the application of asphalt, and the application of architectural coatings and other interior and exterior finishes may produce discernible odors typical of most construction sites. Although these odors could be a source of nuisance to adjacent residences, they are temporary and intermittent in nature. As construction-related emissions dissipate, the odors associated with these emissions would also decrease, dilute, and become unnoticeable. As such, construction impacts would be less than significant.

Operation

Operation of the Project includes residential developments and would not contain any active manufacturing activities. Good housekeeping practices, such as the use of trash receptacles, would be sufficient to prevent nuisance odors. Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402. SCAQMD Rule 402 prohibits the discharge of air contaminants that harm, endanger, or annoy individuals or the public; endanger the comfort, health, or safety of individuals or the public; or cause injury or damage to businesses or properties. Therefore, operational impacts would be less than significant.

CUMULATIVE IMPACTS

The cumulative significance methodologies are contained in the *CEQA Air Quality Handbook* and SCAQMD suggests that the emissions-based thresholds be used to determine if a project’s contribution to regional cumulative emissions is cumulatively considerable. Individual projects that exceed SCAQMD-recommended daily thresholds for project-specific impacts would be considered to cause a cumulatively considerable increase in emissions for those pollutants for which the SSAB is in nonattainment. As discussed in **Threshold: 5.2-2** and **Threshold: 5.2-3**, construction and operation of the Project would not exceed SCAQMD thresholds with mitigation. As such, the Project would not result in a cumulatively considerable impact.

77 South Coast Air Quality Management District. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. May 2005. p. 2-2.

MITIGATION MEASURES

The following mitigation measure would reduce air quality impacts during construction:

MM AQ-1: Construction Emissions

Construction contractors shall, at a minimum, use equipment that meets the USEPA's Final Tier 4 emissions standards for off-road diesel-powered construction equipment with 50 horsepower (hp) or greater, for all phases of construction activity, unless it can be demonstrated to the City with substantial evidence that such equipment is not available. To ensure that Final Tier 4 construction equipment or better shall be used during the proposed Project's construction, the City shall include this requirement in applicable bid documents, purchase orders, and contracts. The City shall also require periodic reporting and provision of written construction documents by construction contractor(s) and conduct regular inspections to the maximum extent feasible to ensure and enforce compliance.

Where Final Tier 4 equipment is not available, the Project shall use Tier 3 equipment outfitted with Best Available Control Technology devices including a CARB certified Level 3 Diesel Particulate Filter (DPF). Level 3 DPF's are capable of achieving at least 85 percent reduction in particulate matter emissions. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Final Tier 4 emissions standards for a similarly sized engine, as defined by the CARB's regulations. Successful contractors must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. The Project representative will make available to the lead agency and SCAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, which will be used during construction. The inventory will include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be maintained on site at the time of mobilization for each applicable piece of construction equipment.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project would incorporate Mitigation Measure **MM AQ-1** to reduce air quality emissions during construction to less than significant levels, as shown in **Table 5.2-9** and **Table 5.2-13**.

5.3 BIOLOGICAL RESOURCES

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed North Indio Specific Plan Project (North Indio Specific Plan or Project) to affect biological resources on the Project Site, City of Indio (City), and within the broader Coachella Valley. This section incorporates information from the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and from the following study of the Project Site:

- Pulte North Indio Project Habitat Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis, City of Indio, Riverside County, California, ELMT Consulting, Inc., August 2022, **Appendix E**.

Prior to the preparation of this Draft EIR, an Initial Study (IS) (included in **Appendix A** of this Draft EIR) was prepared using the CEQA Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with biological resources. The following IS screening criteria related to biological resources do not require additional analysis in this Draft EIR:

- A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service;
- A substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

REGULATORY SETTING

Federal

Federal Endangered Species Act of 1973

The Federal Endangered Species Act (FESA) of 1973, as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS “to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened.” Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. “Take” of endangered species is prohibited under Section 9 of the FESA. Take, as defined under FESA, means to “harass, harm, pursue,

hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” Section 7 of the FESA requires federal agencies to consult with the USFWS on proposed federal actions that may affect any endangered, threatened or proposed (for listing) species or critical habitat that may support the species. Section 10 of the FESA provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 is the domestic law that affirms or implements the United States’ commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. It governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits 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. As with the FESA, the act also authorizes the Secretary of the Interior to issue permits for take. The procedures for securing such permits are found in Title 50 of the Code of Federal Regulations, together with a list of the migratory birds covered by the act. This law is generally protective of migratory birds but does not specify the type of protection required. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA. Nesting raptors, such as red-tailed hawks and burrowing owls, are protected under the MBTA. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

State

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines “endangered” and “rare” species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, “endangered” species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the State of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in “take” of individuals (defined in CESA as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by CDFW. Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFW has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might need concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

California Fish and Game Code

California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds’ nest or any birds’ eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

California Fish and Game Code Sections 1600 through 1616 state that a project proponent is required to notify the CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the California State Fish and Game Code, a “stream” is defined 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. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses? valuable to fish and wildlife are subject to CDFW jurisdiction. The CDFW also has jurisdiction over dry washes that carry water ephemerally during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for a project.

Native Plant Protection Act

Sections 1900-1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

- 1A – Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere
- 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere
- 2A – Plants Presumed Extirpated in California, But More Common Elsewhere
- 2B – Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- 3 – Plants about Which More Information is Needed – A Review List
- 4 – Plants of Limited Distribution- A Watch List

Threat Ranks

1 – Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)

2 – Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)

3 – Not very threatened in California (<20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

Regional and Local

Habitat Conservation Plans

Under Section 10(a)(1)(B) of the FESA, an incidental take permit from the USFWS is required when nonfederal activities will result in “take” of threatened or endangered wildlife. A Habitat Conservation Plan (HCP) must accompany any application to the USFWS for an incidental take permit. If the USFWS accepts the HCP, then the agency issues a permit that allows permittees to “take” an endangered species if such taking is incidental to, and not the primary purpose of, the proposed activity. The permit is required prior to developing any part of an endangered species’ habitat, because USFWS regulations equate habitat modification with taking an endangered species, which is prohibited under federal law. The goal of the HCP is to conserve natural communities before their native species have declined to the point that protection under the FESA is necessary.

The purpose of the HCP planning process is to reduce conflicts between conservation and economic growth and to minimize, to the extent feasible, impacts to endangered, threatened, or sensitive species resulting from a project. The purpose of the permit is to authorize the incidental take of a listed species, not to authorize the activities that result in take. Currently, HCPs are evolving from a process adopted primarily to address single projects to broad-based, landscape-level planning, utilized to achieve long-term biological and regulatory goals. The project applicant, in consultation with the USFWS, drives the development and preparation of an HCP. An HCP generally includes an assessment of impacts likely to result in the taking of federally listed species; measures the applicant will undertake to monitor, minimize, and mitigate impacts; alternative actions to the taking considered and not adopted; and additional measures required by the USFWS.

An HCP is intended to standardize and streamline the existing permitting process for incidental take of listed species under FESA. Upon granting of take approval from the USFWS, the participating entity(s), such as a city, county, or district, assumes permitting responsibilities for proposed projects that would potentially take “covered species.” Covered species include species currently listed as threatened or endangered and certain species that may become listed during the term of the HCP. Mitigation/compensation measures established under an HCP would concurrently satisfy applicable provisions of FESA. It should be noted that an HCP does not address issues associated with Section 404 of

the federal Clean Water Act. Projects that currently require a Section 404 permit would continue to do so notwithstanding the applicable HCP.

Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)

A Multiple Species Habitat Conservation Plan (Plan) was prepared for the entire Coachella Valley and surrounding mountains to address current and potential future State and federal Endangered Species Act issues in the Plan Area. A Memorandum of Understanding (Planning Agreement) was developed to govern the preparation of the Plan. In late 1995 and early 1996, under the auspices of CVAG, the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage; County of Riverside (County); USFWS; California Department of Fish and Game (CDFG); Bureau of Land Management (BLM); U.S. Forest Service (USFS); and National Park Service (NPS) signed the Planning Agreement to initiate the planning effort. Subsequently, Caltrans, Coachella Valley Water District (CVWD), Imperial Irrigation District (IID), Riverside County Flood Control and Water Conservation District (County Flood Control), Riverside County Regional Park and Open Space District (County Parks), Riverside County Waste Resources Management District (County Waste), California Department of Parks and Recreation (State Parks), and CVMC decided to participate in the Plan.

The Plan balances environmental protection and economic development objectives in the Plan Area and simplifies compliance with endangered species related laws. The Plan is intended to satisfy the legal requirements for the issuance of Permits that will allow the take of species covered by the Plan in the course of otherwise lawful activities. The Plan will, to the maximum extent practicable, minimize and mitigate the impacts of the taking and provide for conservation of the Covered Species.

The Plan includes the establishment of an MSHCP Reserve System, setting conservation objectives to ensure the conservation of the Covered Species and conserved natural communities in the MSHCP Reserve System, provisions for management of the MSHCP Reserve System, a monitoring program, and adaptive management. The MSHCP Reserve System will be established from lands within 21 Conservation Areas. Because some take authorization is provided under the Plan for Development in Conservation Areas, the actual MSHCP Reserve System will be somewhat smaller than the total acres in the Conservation Areas. When assembled, the Reserve System will provide for the conservation of the Covered Species in the Plan Area.

City of Indio General Plan

The Conservation chapter of the City's General Plan was prepared to address the conservation, development, and sustainable use of Indio's natural resources. The Conservation chapter includes the following policies associated with biological resource conservation:

Goal CE-7: Biological Resources. The protection and conservation of sensitive biological resources.

Policy CE-7.6: Native plants. Incorporate native desert plant materials into new development projects to the extent possible and feasible.

Policy CE-7.8: Preserve night sky. Ensure that outdoor lighting is shielded and directed away from natural open space areas.

ENVIRONMENTAL SETTING

While the Project Site is currently vacant and undeveloped, it has been subject to disturbance from past agricultural activities and on-going disking activities to control weeds that have affected biological resources on the site. Land uses around the Project Site primarily consist of existing development in all directions and undeveloped land to the northeast. Beyond the paved streets that surround the site is residential development to the north, east, and south. In addition, the Project Site is bounded to the northeast by the Coachella Valley Water District (CVWD) Water Recycling Plant 7 (WRP-7) and Shadow Hills High School to the west, beyond Jefferson Street.

On-site topography is generally flat with limited topographic relief and gentle slopes from northwest to southeast. Tamarisk thicket is the dominant plant community in this area. As discussed in further detail below, the City is a permittee under the CVMSHCP to address impacts to sensitive plant and wildlife species present in the Coachella Valley.

Existing Conditions

Project Site

The Project Site has been directly and indirectly impacted by human activity on all boundaries. The Project Site is bounded on all four sides by the major streets, residential development, and other uses described above. These existing conditions severely limit the movement of small terrestrial animals on, off, and through the Project Site.

The majority of the Project Site consists of land disturbed by past agricultural use. These areas were routinely impacted by agricultural activities and now support early successional and non-native plant species. Common plant species observed onsite include Mediterranean grass (*Schismus barbatus*), hoary saltbush (*Atriplex canescens*), burro weed (*Ambrosia dumosa*), Sahara mustard (*Brassica tournefortii*), filaree (*Erodium* spp.), Sonoran sandmat (*Euphorbia micromera*), brittlebush (*Encelia farinosa*), and tamarisk (*Tamarix ramosissima*).

The elevation of the Project Site ranges from approximately 30 to 55 feet above mean sea level (amsl) and generally slopes from the northwest to southeast. The Project Site is relatively flat with no areas of significant topographic relief. The Project Site is not located within any regional wildlife corridors/linkages or CVMSHCP conservation areas. Additionally, the Project Site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the Project Site to the CVMSHCP conservation areas, as shown in **Figure 5.3-1: Critical Habitat** and **Figure 5.3-2: CVMSHCP Conservation Areas**.

There are no naturally occurring springs or permanent aquatic habitats within the Project Site. No blue-line stream or drainage (streams or dry washes) are shown on US Geological Survey maps for the Project Site and no botanical indicators of any drainage and/or wetland features were identified during field surveys.¹ The National Wetlands Inventory (NWI) identified one (1) freshwater pond in the northwest corner of the Site. However, a field investigation determined this feature was previously a water detention basin associated with historic agricultural activities and it not an active blue-line stream or drainage area. Additionally, several water conveyance channels were also observed onsite that historically transported water for agriculture. These channels were determined to be remnant channels used to transport water for irrigation and are not active drainage channels.

The following soil units underlie the Project Site: Coachella fine sands, Gilman fine sandy loam, Indio fine sands, and Myoma fine sand. Sands with 0 to 2 percent slopes underlie the majority of the Project Site, while sand with 0 to 5 percent slopes is largely confined to the southwestern corner of the Project Site.

Climate

The Project Site lies within the confines of a geographical region known as the Colorado Desert.² Climatological data obtained for the City indicates the annual precipitation averages 3.44 inches per year as is typical of this subdivision of the larger Sonoran Desert.³ Most precipitation falls during the winter and early spring with the exception of heavy monsoonal rains in the summer with August accumulating the most rainfall. Winter days are somewhat cold, averaging 62 degrees Fahrenheit (F). Winter nights occasionally drop near freezing. The months of July and August bring the hottest temperatures with daytime highs averaging 107 degrees F.

Surrounding Area

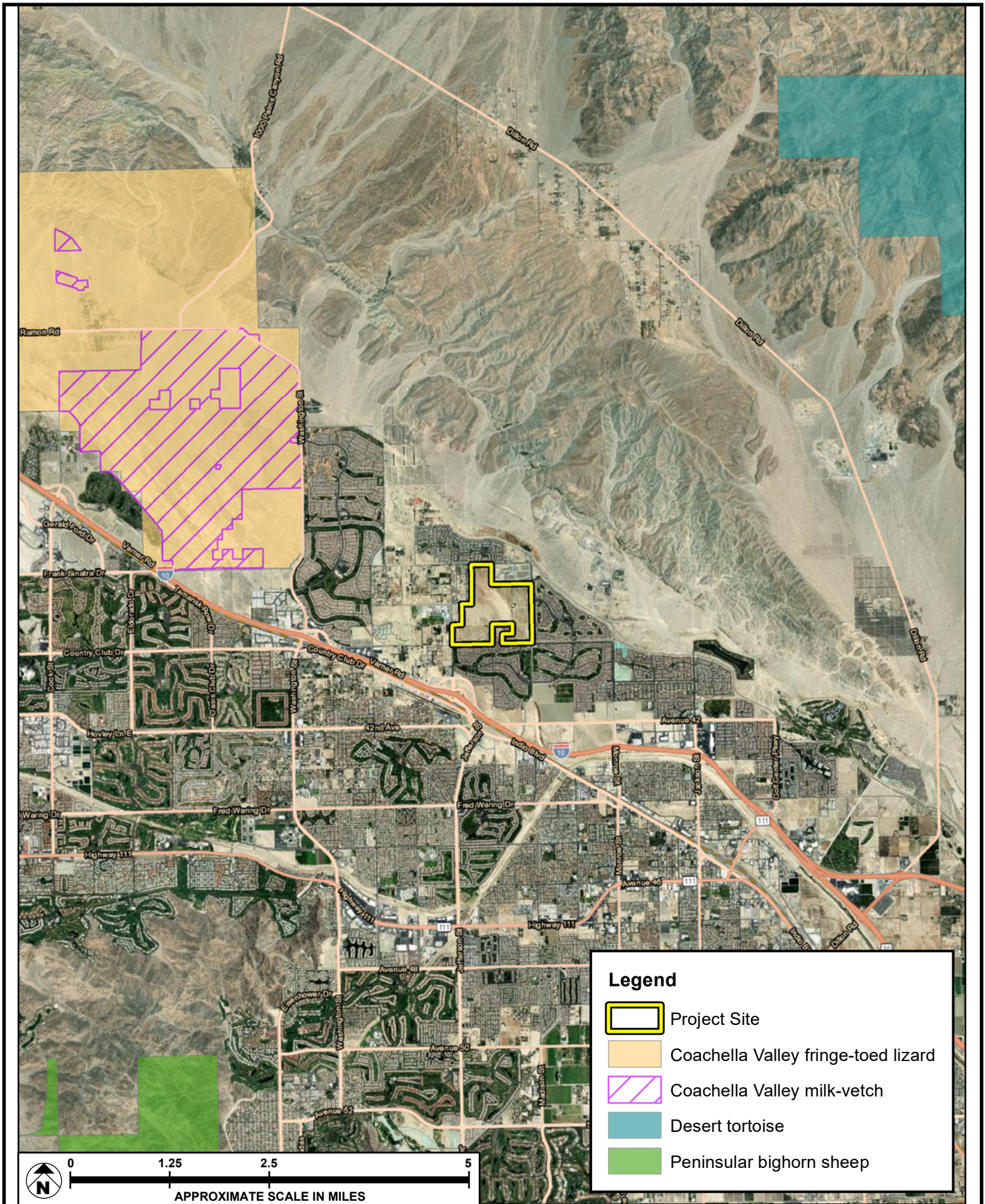
Avenue 40 is classified as a 4-Land Boulevard with a Median or Center Left-Turn Lane⁴ and forms the southern boundary of the Project Site. To the south of Avenue 40 is residential development located around a golf course.

1 ELMT Consulting, Inc. *Pulte North Indio Project Habitat Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis*. August 2022. **Appendix E**.

2 E. C. Jaeger. *The North American Deserts*. Stanford, CA: Stanford University Press, 1957.

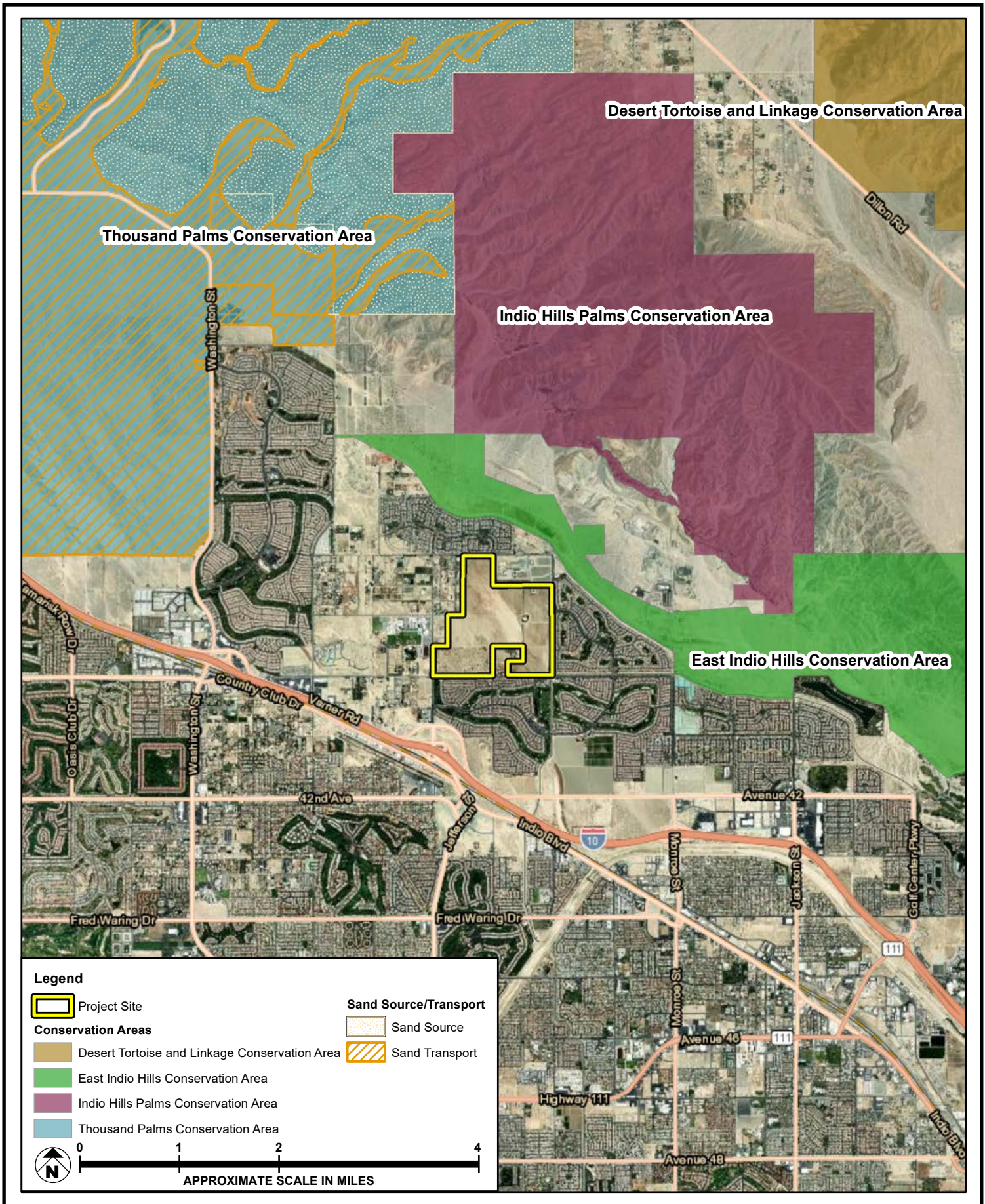
3 National Climatic Data Center. *Climatic Summaries*. Asheville, NC: 2013.

4 City of Indio. *City of Indio General Plan*. "Chapter 4, Mobility." Figure 4-3. https://www.indio.org/your_government/development_services/gp2040/general_plan_2040.htm. Accessed August 2022.



SOURCE: Source: ELMT Consulting – 2022

FIGURE 5.3-1



SOURCE: ELMT Consulting – 2022

FIGURE 5.3-2

Madison Street is classified as a 2-Lane Collector with Median or Center Left-Turn Lane⁵ and forms the eastern boundary of the Project Site. Immediately east of Madison Street is a residential development and east of the development includes Eastside Drive and undeveloped, partially disturbed land. Even farther east of the undeveloped land are the foothills of the Indio Hills.

Avenue 38 is classified as a 2-Lane Collector with Median or Center Left-Turn Lane⁶ and forms the northern boundary of the Project Site. Another residential development is located north of the Project Site. In addition, a single-family home and large area of relatively undisturbed habitat and agricultural lands, similar to that found on the Project Site, is located northeast of the Project Site. Further north of this undeveloped, undisturbed area consists of the foothills of the Indio Hills.

Jefferson Street is classified as a 2-Lane Collector with Median or Center Left-Turn Lane⁷ and forms the western boundary of the Project site. Shadow Hills High School is located directly west of the central portion of the Project Site and pockets of residential and vacant parcels exist further west.

Field Surveys

Field surveys were conducted on August 11, 2021, and April 7, 2022. Survey dates were in mid-summer and early spring, at the end of the rainy season for the region, when most plant species and resident vertebrate species can be detected. However, a recent history of unusually dry rainy seasons in the region may have reduced the sensitive plants found. Drought dictates against the germination of ephemeral plant species and reproduction and survival in all animal species.

Plant communities were identified by walking meandering transects through the on-site plant communities and along boundaries between plant communities. Special attention was given to special-status habitats, which have higher potentials to support special-status plant and wildlife species. The survey pattern used has been approved by the US Fish and Wildlife Service (USFWS) for determining the presence or absence of the burrowing owl and desert tortoise, and represents an intensive survey effort to ensure that no listed or federally protected species were overlooked. No wildlife migratory corridors or linkages that may support the movement of wildlife through the area were identified through the field survey.

Offsite surveys were not conducted because two-lane thoroughfares exist on the north, east and west boundaries of the Project Site, with a four-lane thoroughfare to the south. In addition, existing residential communities to the north, south and east, as well as Shadow Hills High School to the west and CVWD WRP-7 to the north, are enclosed by walls. These barriers dramatically reduce dispersal movements of

5 City of Indio. *City of Indio General Plan*. "Chapter 4, Mobility." Figure 4-3. https://www.indio.org/your_government/development_services/gp2040/general_plan_2040.htm. Accessed August 2022.

6 City of Indio. *City of Indio General Plan*. "Chapter 4, Mobility." Figure 4-3. https://www.indio.org/your_government/development_services/gp2040/general_plan_2040.htm. Accessed August 2022.

7 City of Indio. *City of Indio General Plan*. "Chapter 4, Mobility." Figure 4-3. https://www.indio.org/your_government/development_services/gp2040/general_plan_2040.htm. Accessed August 2022.

species on, off, and through the Project Site, particularly small terrestrial vertebrates. However, the proposed new substation location for the Project is located on the northwest corner of Burr Street and Avenue 40. This location, similar to the Project Site, is bounded by Avenue 40 to the south and Jefferson Street to the east. Thus, this potential substation location would also reduce dispersal movements of species. Animal surveys were conducted simultaneously with plant surveys. Wildlife observations were based on calls, songs, scat, tracks, burrows, and actual sightings of animals.

Biological Communities/Habitat

Habitat describes the place or set of environmental conditions in which plants and animals naturally live and grow. Temperature and precipitation are primary factors in determining specific locations of different habitats and the assortment of plant and animal species they support. In the Coachella Valley and surrounding areas, desert habitats are generally distinguished by physical differences in slope, soil substrate, solar and wind exposure, and water supply. The interrelationships of the physical environment of the habitat with the biological resources contained within define an ecological system. The value and diversity of habitats are determined by various factors, including climate, varied terrain, adequate space, a dependable supply of food and water, soils for vegetation growth, and shelter and nesting sites.

Plant Communities

The tamarisk thicket community was identified in the middle of the southern boundary and southeast corner of the Project Site. Other common plant species observed on the Project Site include Mediterranean grass (*Schismus barbatus*), hoary saltbush (*Atriplex canescens*), burro weed (*Ambrosia dumosa*), Saharan mustard (*Brassica tournefortii*), filaree (*Erodium* spp.), Sonoran sandmat (*Euphorbia micromera*), and brittlebush (*Encelia farinosa*).

Since the Project Site has been previously subject to agricultural and on-going disking activities, most natural plant communities that once existed on the site have been eliminated. These areas were routinely impacted by agricultural activities and now support early successional and non-native plant species. Further, the surrounding development has eliminated natural plant communities from the immediate area surrounding the Project Site. In areas of disturbance, native vegetation has been impacted and dominated by weed species that germinate and grow following the damage or removal of native vegetation. Within the Project Site, such species includes Saharan mustard (*Brassica tournefortii*). This species is often found throughout the California deserts wherever the natural vegetation has been removed.

The California Natural Diversity Database (CNDDB) lists one (1) special-status vegetation community as being identified within the Myoma, West Berdoo Canyon, La Quinta, and Indio quadrangles: Desert Fan Palm Oasis Woodland. Based on the results of the field investigation, no special-status plant communities were observed onsite.

Special Status Plant Species

The Inventory of Rare and Endangered Vascular Plants of California, published online by the California Native Plant Society (CNPS) and the CNDDDB, lists a total of twenty-nine (29) special-status plant species as having potential to occur within the Myoma, West Berdoo Canyon, La Quinta, and Indio quadrangles. Based on habitat requirements for the identified special-status species, known species distributions, and existing site conditions, it was determined that the Project Site has a low potential to support Coachella Valley milkvetch, Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*), ribbed cryptantha (*Johnstonella costata*), Arizona spurge (*Euphorbia arizonica*), and flat-seeded spurge (*Euphorbia platysperma*). Further, it was determined that no other special-status plant species have the potential to occur on-site and are presumed absent. The Coachella Valley milkvetch is the only special status species covered under the CVMSHCP.

Descriptions of special-status plant species determined to have a moderate or higher potential to occur within the Project Site, as well as of those covered species that are known to occur within the general vicinity of the Project Site, are provided as follows:

Coachella Valley Milk-vetch

Coachella Valley milk-vetch can be either an annual or perennial herb that blooms between February and May. It is federally listed as endangered and is designated by the CNPS with the Rare Plant Rank 1B.2, indicating that is rare, threatened, or endangered in California and elsewhere, and is considered fairly threatened in California, with 20-80 percent of its known occurrences threatened. It is covered under the CVMSHCP, is endemic to California, and is only known from Riverside County. It occurs in sandy soils within desert dunes and Sonoran Desert scrub, where it typically grows at elevations between 131 and 2,149 feet. Coachella Valley milk-vetch is known to occur in many locations throughout the Coachella Valley. Coachella Valley milk-vetch was not detected onsite during the 2022 focused surveys.

Borrego Milk-vetch

Borrego milk-vetch is an annual herb that blooms between February and May. It is not state or federally listed. However, it is designated by the CNPS with the Rare Plant Rank 4.3, indicating that it is a plant of limited distribution and is not very threatened in California, with less than 20% of its known occurrences threatened. It is not endemic to California, but in California it is known to occur in Imperial, Riverside, San Bernardino, and San Diego Counties, where it can be found in sandy soils in Mojavean and Sonoran Desert scrub between 98 and 1,050 feet in elevation. Borrego milk-vetch was determined to have a moderate potential to occur on the Project Site. However, it was not observed during the 2022 focused surveys.

Ribbed Cryptantha

Ribbed cryptantha is an annual herb that blooms between February and May. It is not State or federally listed. However, it is designated by the CNPS with the Rare Plant Rank 4.3, indicating that it is a plant of limited distribution and is not very threatened in California, with less than 20 percent of its known

occurrences threatened. It is not endemic to California, but in California it is known to occur in Imperial, Inyo, Riverside, San Bernardino, and San Diego Counties, where it can be found in sandy soils in desert dunes and Mojavean and Sonoran Desert scrub between 197 and 1,640 feet in elevation. Ribbed cryptantha was determined to have a moderate potential to occur on the Project Site. However, it was not observed during the 2022 surveys.

Arizona Spurge

Arizona spurge is a perennial herb that blooms between March and April. It is not state or federally listed. However, it is designated by the CNPS with the Rare Plant Rank 2B.3, indicating that it is rare, threatened, or endangered in California and more common elsewhere, but is still not very threatened in California, with less than 20% of its known occurrences threatened. It is not endemic to California, but in California it is known to occur in Imperial, Riverside, and San Diego Counties, where it can be found in sandy Sonoran desert scrub between 164 and 984 feet in elevation. Arizona spurge was determined to have a low potential to occur on the Project Site. However, it was not observed during the 2022 surveys.

Flat-seeded Spurge

Flat-seeded spurge is an annual herb that blooms between February and September. It is not state or federally listed. However, it is designated by the CNPS with the Rare Plant Rank 1B.1, indicating that it is indicating that is rare, threatened, or endangered in California and elsewhere, and is seriously threatened in California. It is not endemic to California, but in California it is known to occur in Imperial, Riverside, and San Diego Counties, where it can be found in sandy Sonoran Desert scrub between 213 and 328 feet in elevation. Flat-seeded spurge was determined to have a low potential to occur on the Project Site. However, it was not observed during the 2022 surveys.

Wildlife Species

The fauna of the Project Site and surrounding vicinity is composed of species typically found in sandy, windswept habitat in the Coachella Valley portion of the Colorado Desert. The literature search identified Sixty-two (62) special-status wildlife species as having been reported in the Myoma, West Berdoo Canyon, La Quinta, and Indio quadrangles. The only special-status animal species observed onsite during the field investigation was Costa's hummingbird.

Based on habitat requirements, known distributions, and the and routine disturbance, it was determined the Project Site has a high potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter straitus*), burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), prairie falcon (*Falco mexicanus*), loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*), and rufous hummingbird (*Selasphorus rufus*). None of the aforementioned species are state or federally listed as threatened or endangered. The only special-status animal species observed onsite during the field investigations were Costa's hummingbird and sharp-shinned hawk.

Burrowing Owl

The burrowing owl is designated by the CDFW as a California species of special concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground. They are dependent upon the presence of burrowing mammals (such as ground squirrels) for roosting and nesting habitat. The presence or absence of colonial mammal burrows is often a major factor that limits the presence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying manmade cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. Small mammals may also burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. This species requires open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators. The burrowing owl nesting season generally extends from mid-March to the end of August. The Project Site contains suitable habitat for burrowing owl. However, no burrowing owls were observed during the 2022 focused survey.

Wildlife Movement Corridors

Habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

According to the CVMSHCP, the Project Site is not located within any identified wildlife migratory corridors or linkages. However, the eastern boundary of the Project Site is located approximately 900 feet from the East Indio Hills Conservation Area.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of biological resource impacts (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact if it would:

Threshold 5.3-1: 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 CDFW or USFWS.

Threshold 5.3-2: 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.

Methodology

Prior to conducting field surveys, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the proposed project. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the proposed project were determined through a query of the CDFW's CNDDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

Literature detailing biological resources previously observed in the vicinity of the Project Site and historical land uses were reviewed to understand the extent of disturbances to the habitats on site. Standard field guides and texts on special-status and non-special-status biological resources were reviewed for habitat requirements as well as the following resources:

- Google Earth Pro historic aerial imagery (1985-2021);
- CDFW 2012 Staff Report on Burrowing Owl Mitigation;
- Coachella Valley Multiple Species Habitat Conservation Plan;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey;⁸ and
- USFWS Critical Habitat designations for Threatened and Endangered Species.

Project Impacts

Threshold 5.3-1: 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 CDFW or USFWS?

The Project Site consists primarily of vacant, undeveloped land that has been subject to a history of disturbance by human activity over time. The site contains one vegetation community, tamarisk thicket, and one (1) land cover type classified as disturbed. The fauna of the Project Site and surrounding vicinity consists of species typical of disturbed, desert habitats in the Coachella Valley. Any off-site construction, including utilities, would be temporary and would not significantly impact the surrounding resources.

⁸ A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

5.3 Biological Resources

No special status plant species were observed on-site during the field investigation. The only special-status animal species observed onsite during the field investigation was Costa's hummingbird and sharp-shinned hawk. In addition, the Project Site was determined to have a high potential to support eight (8) special-status wildlife species that are not covered under the CVMSHCP, including Cooper's hawk, sharp-shinned hawk, burrowing owl, California horned lark, prairie falcon, loggerhead shrike, rufous hummingbird, and black-tailed gnatcatcher.

In order to ensure impacts to these avian species do not occur from implementation of the proposed project, Mitigation Measure (MM) BIO-1 and MM BIO-2 would be implemented to include a pre-construction nesting bird clearance survey shall be conducted prior to ground disturbance. With implementation of the pre-construction nesting bird clearance survey, impacts to special-status avian species will be less than significant and no mitigation will be required.

The Project Site was determined to have a low potential to support five (5) special-status plant species that are not covered under the CVMSHCP, including Borrego milk-vetch, ribbed cryptantha, winged cryptantha, Arizona spurge, and flat-seeded spurge. Costa's hummingbird was the only special-status species not covered under the CVMSHCP that was observed within the Project Site during the habitat assessment; mitigation regarding these species is further discussed below. The Project Site is not expected to have long-term conservation value for non-covered special-status plant species since it is surrounded by development and no additional mitigation obligations specific to these plant species are expected.

Furthermore, the Project is consistent with the applicable goal and policies identified within the City's General Plan Conservation Element. The Project would adhere to the City's general development standards regarding lighting to prevent spillover or bleeding beyond the Project Site and into nearby open spaces or into the sky.⁹ Additionally, the Project's landscaping plan includes native and drought tolerant planting that is appropriate for the climatic conditions, soil conditions and concern for maintenance.

The entirety of the Project Site has been previously disturbed with agricultural activities and on-going disking activity. As such, native vegetation has been impacted in these areas of disturbance. Development of the Project would not result in the loss of native vegetation and habitats that support sensitive and special-status species.

CVMSHCP

The Project was reviewed to determine consistency with the CVMSHCP which requires that local permittees comply with various protective measures for covered species, communities, essential ecological processes, and biological corridors. The proposed project is not listed as a planned "Covered

⁹ Indio Municipal Code (IMC). Title XV. Ch. 159. Section 159.653 (I).

Activity” under the published CVMSHCP but is still considered to be a current Covered Activity pursuant to Section 7.1 of the CVMSHCP. According to Section 7.1 of the CVMSHCP, take authorization will be provided for certain activities that take place outside of Conservation Areas including:

“new projects approved pursuant to county and city general plans, transportation improvement plans for roads in addition to those addressed in Section 7.2, master drainage plans, capital improvement plans, water and waste management plans, the County’s adopted Trails Master Plan, and other plans adopted by the Permittees.”

As a Covered Activity located outside designated conservation areas, implementation of the proposed project is expected to be consistent with the applicable regulatory compliance measures described in Section 4.4 of the CVMSHCP through payment of the applicable CVMSHCP fee.

As stated above, the proposed Project is located within the boundaries of the CVMSHCP, but not located within any of the CVMSHCP designated conservation areas. As a Covered Activity located outside designated conservation areas, implementation of the proposed Project is expected to be consistent with the applicable regulatory compliance measures described in Section 4.4 of the CVMSHCP. Since the proposed project is considered a Covered Activity under Section 7.1 of the CVMSHCP, no measures are required, and the project is in compliance with the CVMSHCP. Accordingly, impacts would be less than significant.

In addition to consistency with the applicable policies presented in the CVMSHCP, the Project Applicant would pay the conservation fee identified by the CVMSHCP. With payment of the conservation fee identified in **MM BIO-3**, development would be consistent with the CVMSHCP. The Project would also implement **MM BIO-1**, which requires preconstruction surveys for burrowing owls during nesting season to further mitigate direct impacts of the Project, and **MM BIO-2**, which requires preconstruction breeding surveys for Cooper’s hawk, sharp-shinned hawk, California horned lark, prairie falcon, loggerhead shrike, rufous hummingbird, and black-tailed gnatcatcher. The impacts of the Project would be mitigated to a less than significant level through **MM BIO-1**, **MM BIO-2**, and **MM BIO-3**.

Threshold 5.3-2: 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?

According to the CVMSHCP, the Project Site does not occur within any identified wildlife migratory corridors or linkages. The eastern boundary of the Project Site is located approximately 900 feet from the East Indio Hills Conservation Area and the entire Project Site is buffered by existing development on all sides. Since project activities will not extend beyond the site boundaries and the Project Site does not share a common boundary with any parcel in a Conservation Area (i.e., existing paved streets and residential development), implementation of the proposed project is not expected to have any direct or indirect impacts to the East Indio Hills Conservation Area and would not be subject to the Land Use Adjacency Guidelines set forth in the CVMSHCP. As a result, implementation of the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area. In

addition, the Project Site does not contain habitat suitable for wildlife nursery sites and as such, wildlife nursery sites would not be impacted by the Project. The impact of the Project on wildlife movement and native wildlife nursery sites would be less than significant.

CUMULATIVE IMPACTS

Implementation of the proposed Project in conjunction with other related projects within the County of Riverside and the City of Indio, and other growth permitted by the City's General Plan and the General Plans of other jurisdictions in the Coachella Valley will result in cumulative impacts to biological resources.

The City of Indio and other jurisdictions in the Coachella Valley are permittees under the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The HCPs are intended to address the cumulative impacts on sensitive biological species posed by development throughout the Coachella Valley through the provision of mitigation for regional cumulative biological effects resulting from development within the HCP areas. By establishing dedicated conservation areas with stringent development restrictions, the intent of the HCPs are to allow needed development to proceed elsewhere in the valley while preserving sufficient habitat for plant and wildlife species to survive. In this manner, compliance with the HCPs ensure that cumulative impacts to biological resources are mitigated to a level considered less than significant.

As with the Project, related projects would be subject to the CVMSHCP as applicable, and the impacts from those projects to sensitive habitat, sensitive plants, and sensitive wildlife would be required to be mitigated through compliance with the requirements of the CVMSHCP, including the payment of the CVMSHCP Conservation Plan Fee. Therefore, implementation of related projects and other anticipated growth in the Coachella Valley would not combine with the Project to result in cumulatively considerable impacts on biological resources.

MITIGATION MEASURES

The following mitigation measures would reduce biological resource impacts:

MM BIO-1: Pre-construction Burrowing Owl Clearance Survey

To avoid impacts to burrowing owls during construction, the following actions, which are consistent with the Burrowing Owl Mitigation prepared by the CVMSHCP on March 7, 2012, and approved and accepted by the USFWS, shall be taken:

1. Two pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to any ground disturbance or vegetation removal activities planned between February 15 and June 15, the breeding season for burrowing owls, to determine the location of any active burrows on and within 550 yards of an approved Project Site. If no active burrows are found in the survey area, site disturbance may commence providing a biological monitor is on-site.

2. A biological monitor, with the authority to halt or redirect grading, shall be present whenever grading or construction vehicles are present and operating on the Project Site. The function of the monitor is to protect burrowing owls that arrive on or near the Project Site after the clearance survey and during the construction period.

As specified in Section 4.4 of the CVMSHCP, the applicable avoidance, minimization, and mitigation measures shall be implemented in the event an owl burrow is discovered. If either a nesting or escape burrow is occupied, owls shall be relocated pursuant to accepted Wildlife Agency protocols

MM BIO-2: Migratory Bird Treaty Act and Fish and Game Code Compliance. Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.3, 3511, and 3513 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests, or eggs). If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer should be expanded to 500 feet. A biological monitor should be present to delineate the boundaries of the buffer area and monitor the active nest to ensure that nesting behavior is not adversely affected by construction activities. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

MM BIO-3: Coachella Valley Multiple Species Habitat Conservation Plan. The CVMSHCP Conservation Fee shall be paid in accordance with the provisions of the Indio Municipal Code (Section 33.090). **Pre-Construction Burrowing Owl Clearance Survey.** To ensure burrowing owl remain absent from the Project Site, it is recommended that a burrowing owl pre-construction clearance survey be conducted prior to any ground disturbing activities.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Payment of the CVMSHCP Conservation Fee, as required by Mitigation Measure **MM BIO-1**, will mitigate the potential impact of the Project on sensitive plant and wildlife species addressed by the CVMSHCP to a less than significant level. While payment of the CVMSHCP Conservation Fee will mitigate the impact of the Project on the species listed in the CVMSHCP and their habitats a less than significant level. Additionally, implementation of:

5.3 Biological Resources

MM BIO-2 will mitigate the direct impact of Project construction activities on any nesting birds that may be present on the Project Site to a less than significant level;

And **MM BIO-3** will further mitigate the direct impact of Project construction activities on any individual burrowing owls that may be present on the Project Site.

Based on the Project Site's footprint, and with the implementation of the aforementioned mitigation, none of the special-status species known to occur in the general vicinity of the Project Site will be directly or indirectly adversely impacted from implementation of the Project. Additionally, mass grading of the site prior to construction as opposed to incremental grading would discourage species from re-establishing residence onsite, thereby reducing potential impacts to biological resources. Due to these factors, it was determined that Project impacts on federally, State, or CVMSHCP listed species known to occur in the general vicinity of the Project Site would be less than significant. Additionally, Project impacts on federally designated Critical Habitats would be less than significant. With implementation of the applicable avoidance and minimization measures, as well as payment of the CVMSHCP local development mitigation fee, the proposed Project would be fully consistent with the biological goals and objectives of the CVMSHCP. No significant unavoidable project or cumulative impacts to biological resources would result from the Project.

5.4 CULTURAL RESOURCES

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential for implementation of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or Project”) to affect cultural resources within the Project Site and in the immediate surrounding area. Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, or architectural activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. Information from the following study of the Project Site is incorporated into this section:

- Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California, Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli, Statistical Research, Inc. (SRI), December 2022. See **Appendix F**.

REGULATORY SETTING

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) authorized formation of the National Register of Historic Places (NRHP) and coordinates public and private efforts to identify, evaluate, and protect the Nation’s historic and archaeological resources. The NRHP includes districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

National Register of Historic Places

Section 106 of the NHPA requires federal agencies to take into account the effects of an undertaking on historic properties, which are defined as cultural resources included in or eligible for listing in the NRHP. A Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process, with assistance from State Historic Preservation Offices (SHPOs). If any impacts are identified, the agency undergoing the project must identify the appropriate SHPO to consult with during the process.

Determination of NRHP eligibility for cultural resources prior to making a finding of effect is made according to the following criteria:

1. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

2. that are associated with events that have made a significant contribution to the broad patterns of our history; or
3. that are associated with the lives of persons significant in our past; or
4. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
5. that have yielded, or may be likely to yield, information important in prehistory or history.

If cultural resources do not meet the above criteria, they are not historic properties and are not further considered in the Section 106 process. In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired or significant individuals made their important contributions.

State

State Health and Safety Code

The discovery of human remains is regulated by *California Health and Safety Code*, Section 7050.5, which states that

“(b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code that the remains are not subject to...provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

(c) If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.”

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is the authoritative guide to the State’s significant archaeological and historical resources. It closely follows the eligibility criteria of the NRHP but deals with State and local-level resources. The CRHR serves to identify, evaluate, register, and protect California’s historical resources. For purposes of CEQA, a historical resource is any building, site,

structure, object, or historic district listed in or eligible for listing in the CRHR (Public Resources Code, Section 21084.1). A resource is considered eligible for listing in the CRHR if it meets any of the following criteria:

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

Historical resources meeting one or more of the criteria listed above are eligible for listing in the CRHR. In addition to significance, resources must have integrity for a period of significance—the date or span of time within which significant events transpired or significant individuals made important contributions. Important archaeological resources are required to be at least 50 years old to be considered. “Integrity is the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance.”¹ Simply put, resources must “retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.”

CEQA also requires the lead agency to consider whether there is a significant effect on unique archaeological resources that are not eligible for listing in the California Register. As defined in CEQA, a unique archaeological resource is:²

“an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- 1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*
- 2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.*
- 3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.”*

If an archaeological resource is found eligible for listing in the CRHR, then it is considered under CEQA to be a historic resource that needs to be protected. This may also apply to unique archaeological resources. If a historic resource may be impacted by a project, under CEQA, avoidance and preservation in place is the preferred alternative. If that is not feasible, then a data recovery plan will need to be

1 California Code of Regulations (CCR). Title 14. Section 4852 (c).

2 California Public Resources Code (PRC). Section 21083.2 (g).

created and enacted to lessen impacts to the environment to a less than significant level. If the archaeological resource is not eligible for listing in the CRHR, and it is not a unique archaeological resource, then no further action is required to protect or mitigate possible impacts to it.

California Public Resources Code

Archaeological and historical sites are protected pursuant to a wide variety of State policies and regulations enumerated under the *California Public Resources Code*. In addition, cultural resources are recognized as a non-renewable resource and, therefore, receive protection under the *California Public Resources Code* and CEQA:

- California Public Resources Code Sections 5020-5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission (SHRC). The SHRC oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.
- California Public Resources Code Sections 5079-5079.65 defined the functions and duties of the Office of Historic Preservation (OHP). OHP is responsible for the administration of federally and State mandated historic preservation programs in California and the California Heritage Fund.
- California Public Resources Code Sections 5097.9-5097.998 provide protection to Native American historical and cultural resources and sacred sites, and identify the powers and duties of the Native American Heritage Commission (NAHC). These sections also require notification of discoveries of Native American human remains, descendants and provide for treatment and disposition of human remains and associated grave goods.

Regional and Local

City of Indio

General Plan Update 2040

The City's most recent General Plan Update 2040 includes provisions for protecting cultural and historic resources within the City. Chapter 8 Conservation Element includes guidance to enhance and protect cultural and historic resources. Identifying and preserving significant cultural and historic resources strengthens community heritage and identity. These resources provide a constant reminder of the culture and history of the City and the Coachella Valley and serve as a valuable educational resource for residents and visitors. The following goals and policies are relevant to the proposed Project:

Goal CE-8: Historic, Archaeological, and Paleontological Resources. Historic, archaeological, and paleontological resources preserved for their scientific, educational, aesthetic, and cultural values.

CE-8.1 Site plan review. Ensure adequate site plan review and mitigation measures are implemented for the development of sites with the potential to contain historic, archaeological, and paleontological resources.

CE-8.2 Avoidance of impacts to historic resources. For projects that could affect historic resources, ensure adequate study to identify eligible resources and project-level review to avoid or lessen negative impacts

through conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

- CE-8.4** **Monitoring.** Require monitoring on sites where grading has the potential to impact subsurface cultural and paleontological resources during excavation and construction activities.

City of Indio Municipal Code

Chapter 151.014 Adoption of California Historical Building Code

Chapter 151.014 adopts the 2016 California Historical Building Code (CHBC) published by the International Code Council as the historical building code of the City. As adopted by the City, the CHBC provides regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties in the City. With few exceptions, these are buildings or properties over 50 years in age. The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users.

ENVIRONMENTAL SETTING

Existing Conditions

Regional and Local Setting

California is divided into geomorphic provinces which are distinctive, generally easy-to-recognize natural regions in which the geologic record, types of landforms, pattern of landscape features, and climate in all parts are similar. The Project Site is located in the Coachella Valley in the northern part of the Colorado Desert Geomorphic Province, which is a low-lying barren desert basin. More specifically, the Project Site is located in the City of Indio within Riverside County. The Project Site is located along the far-northwestern end of the Coachella Valley, a low valley sandwiched between the Santa Rosa Mountains to the south and southeast and the Little San Bernardino Mountains to the north. Topographically, the elevation of the Project Site is approximately 360 feet above mean sea level (amsl) and generally slopes from the northwest to the south. The Project Site is relatively flat with no areas of significant topographic relief.

The approximately 378-acre Project Site has never been developed but has been historically used for, and disturbed by, agricultural activities. For purposes of evaluation, the Project Site includes a separate 3-acre parcel located on the northwest corner of Avenue 40 and Burr Street located immediately southwest of the Project Site, which is under consideration as an alternative site for development of a new electrical substation by the Imperial Irrigation District (IID) planned to provide electrical service to the Proposed Project and surrounding area.

Cultural Setting

Prehistoric Background

The Paleoindian Period (12,000-8000 B.P.)

Paleoindian period groups, occupied much of California beginning about 12,000 years ago. However, there is very little evidence of Paleoindian period occupation of the northern Coachella Valley. The reasons for this are unclear but may be related to a lack of habitat for the large game hunted by Clovis people.

Across much of western North America, the Clovis complex developed into the Western Stemmed Point tradition or Western Pluvial Lakes tradition after 10,000 B.P., probably in response to the warming and drying climate of the early Holocene. This tradition is characterized by crescents and large stemmed, shouldered, and lanceolate points. This cultural assemblage is commonly called San Dieguito in southern California and had an economy presumably based on the exploitation of marsh plants, fish, freshwater shellfish, and large and small game. Originally, three distinct phases were defined that were associated with the San Dieguito cultures, but further excavations at the sites where he worked have failed to find evidence of these distinctions.³

There is little evidence of a San Dieguito presence in the northern Coachella Valley, probably just a few “small, mobile bands exploiting small and large game and collecting seasonally available wild plants.”⁴ The reasons for this are unclear, but the lack of an early occupation may indicate that Lake Cahuilla was not inundated during that time.

The Archaic Period (8000-1500 B.P.)

Beginning about 8,000 years ago, the climate became hotter and drier, and it appears that the northern Coachella Valley was basically abandoned during that time. At best, the record suggests only a minor occupation by relatively few people. When the climate began to cool, after about 4,000 years ago, during the Late Archaic period, it appears that the Colorado Desert was reoccupied, and several archaeological sites in the northern Coachella Valley are dated to this time. It appears that, as with later occupations, much of the occupation centered on the shores of Lake Cahuilla. However, very little is known about overall Late Archaic period adaptations or social structure.

One of the best-documented Late Archaic period sites in the Colorado Desert is the Indian Hill Rockshelter near Anza-Borrego State Park, located approximately 44 miles south-southwest of the Project Site. Excavators found a number of rock-lined storage pits as well as hearths and Elko Eared projectile points. Radiocarbon dates from these levels indicated that they were occupied approximately 4,000 years ago. A rockshelter from Tahquitz Canyon also contained rock-lined pits and similar artifacts, but no

3 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See Appendix F.

4 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See Appendix F.

radiocarbon dates were taken at the site; so, its true age is unclear. Taken together, these sites suggest that people lived in highly mobile bands and took advantage of a variety of resources in the area.

Excavations at two sites near Desert Hot Springs located 37.2 km northwest of the Project Site (CA-RIV-1827 and CA-RIV-2642) encountered deposits dating to the transition from the Late Archaic period to the Late Prehistoric period, approximately 1200-1000 B.P.⁵ These sites contained evidence of habitation, including hearth features; activity surfaces and a variety of artifact types, such as flaked stone debitage; faunal remains; and possible human remains. These sites are located adjacent to the ethnohistorically known Seven Palms Rancheria (CA-RIV-154), and it is likely that these sites represent an early occupation of the village.

The Late Prehistoric Period (1500-200 B.P.)

Beginning about 1500 B.P., Yuman (or Patayan) agricultural groups along the Colorado River area began to influence Colorado Desert groups, particularly in the Coachella Valley. This Patayan pattern included a preceramic phase and three ceramic phases, Patayan I (ca. 1500-1000 B.P.), II (ca. 1000-500 B.P.), and III (after ca. 500 B.P.). After about 1000 B.P. (Patayan II), a number of cultural traits, including new ceramic types, small triangular points, and cremations, moved west from the Colorado River, either through diffusion or perhaps carried by some migrating Yuman people. Whichever the case, long-distance trade networks were established between the Coachella Valley and Colorado River.

Agricultural crops were also probably introduced into the area during this time. Along the Colorado River, domesticated crops constituted up to half of the diet of Yumans. Ethnographically, the Cahuilla were known to have large, walk-in wells that could have been used in pot irrigation, although small check dams and other simple irrigation technologies likely also were used.

The Late Prehistoric period groups that occupied the Coachella Valley were the direct ancestors of the ethnographic Cahuilla. This period represents a significant increase in human occupation of the valley, and several large archaeological sites from the period have been identified.

Ethnographic Background

The Aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla, who, along with the Mountain and Pass Cahuilla, constituted the ethnographic Cahuilla. The Cahuilla spoke a language of the Takic branch of Northern Uto-Aztecan, and the Desert Cahuilla spoke a distinct dialect of Cahuilla. There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 22.5 miles northwest of the Project Site, identified occupations stretching from the Late Prehistoric period into the early

5 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See Appendix F.

twentieth century. Similarly, excavations at Tahquitz Canyon, approximately 20.4 miles northwest of the Project Site, found a large village complex dating to between A.D. 1600 and 1870.

The Desert Cahuilla exploited a large amount of plant species with mesquite on the Coachella Valley floor as the primary food staple. The Desert Cahuilla also grew a few agricultural crops, namely corn, beans, and squash, which were probably obtained from native peoples along the Colorado River to the east. The Cahuilla also preferred a variety of animals including deer and mountain sheep to smaller animals such as rabbits and rodents. The Cahuilla population was originally as many as 3,000 people but declined rapidly after the smallpox and measles epidemic of 1863.

In 1876, the Agua Caliente Indian Reservation (Reservation) was founded by an Executive Order of President Ulysses S. Grant which was expanded in 1877 and 1907. The Reservation covers roughly 31,500 acres and consists of all even-numbered sections and all unsurveyed portions of Township 4 South, Ranges 4 and 5 East, and Township 5 South, Range 4 East, on the San Bernardino Meridian, with the exception of sections already given out by the United States (US) government. The odd-numbered sections had already been given to railroads as an incentive to develop cross-country rail lines, and as such, the Reservation appears as a checkerboard pattern on maps. In 1891, Congress passed the Mission Indian Relief Act, which authorized allotments of Reservation land to be given to individuals. The allotment elections were finally approved by the Secretary of the Interior as part of the Equalization Act in 1959, which finalized the individual Indian allotments and set aside certain lands for Agua Caliente Tribal use and cemeteries. The Agua Caliente Tribe has a land-exchange agreement with the U.S. Department of the Interior (USDI) Bureau of Land Management (BLM) and is actively acquiring other non-reservation land.

Historical Background

The extreme aridity of the Colorado Desert acted as a deterrent to many early explorers. The earliest recorded European visit to the Coachella Valley was by José Romero in the winter of 1823-1824, the leader of an expedition attempting to reach the Colorado River by a new route.⁶ Until the mid-nineteenth century, however, most expeditions into the Coachella Valley were confined to the established prehistoric trail systems. In 1853, William P. Blake described the Coachella Valley during the Pacific Railroad Survey expedition.⁷ Blake recorded the general environment, noted the location of Indian villages, described native agriculture in the Coachella Valley, and recorded some oral traditions of the Indians concerning life around ancient Lake Cahuilla. In 1855 and 1856, the US Land Office Survey surveyed the valley and divided it into townships and sections.

In the 1880s, the Homestead Act and the Desert Land Act opened much of the public land in the area to private development. Farming was the primary economic activity in the valley, supported by a variety of

6 Lowell J. Bean and William Mason. *Diaries & Accounts of the Romero Expeditions in Arizona and California, 1823-1826*. Palm Springs, CA: Palm Springs Desert Museum. 1962.

7 Blake, William P. *Reports of Explorations in California for Railroad Routes to Connect with Routes near the 35th and 32nd Parallels of North Latitude*. 1857.

wells that accessed sizable underground water resources. Prior to the installation of a canal system, the lack of runoff and an increase in land development made well-pumping a necessity. So, in 1938, construction began for the 123-mile Coachella Canal. This canal would supply additional water from the Colorado River to the valley for crop irrigation and to aid in flood control. The Coachella Canal, completed in 1949, extends northwest from the All-American Canal and through the southeastern corner of the Project Site at the corner of Madison Street and 40th Avenue. By the 1960s, the Coachella Valley County Water District (CVWD) realized the limitations of the Coachella Canal. The portion of the Coachella Canal within the Project Site was covered during the widening of Madison Avenue after 2006 and is no longer visible in the Project Site.

During the late twentieth century, development in the Coachella Valley expanded rapidly; scores of country clubs and housing developments appeared along SR 111 and I-10. The southern and eastern sides of the Project Site are surrounded by such developments. The advent of Native American gaming initiatives has also driven economic development in the valley. At least three casino resorts are present in the valley; several others are located nearby.

Archaeological Resources

Records searches and other archival research were conducted by SRI at the California Historical Resources Information System (CHRIS) Eastern Information Center (EIC), Department of Anthropology, University of California, Riverside, on August 25, 2021. The records search looked at all reports from archaeological work executed within a 1-mile radius of the Project Site, as well as all previously recorded historical-period and prehistoric cultural resources recorded within the same 1-mile radius. Historical maps were also consulted for information regarding specific historical-period land use in and around the Project Site. Resources consulted included historical USGS topographic maps, BLM/US General Land Office (GLO) records, and Sanborn Fire Insurance (Sanborn) maps.

The records search indicated that five previously conducted studies included work in portions of the Project Site. Together, these studies included approximately 7 percent of the current Project Site. Another 75 reports related to land within the 1-mile records-search buffer. In total, 32 cultural resources were identified within the records-search area: 29 archaeological sites (20 prehistoric and 9 historical period) and 3 isolated prehistoric resources. The recorded prehistoric resources largely consist of artifact scatters or habitation areas; 1 prehistoric site also includes elements of a rock alignment and a trail segment. At least 2 of the prehistoric sites (CA-RIV-6896 and CA-RIV-12669) contained human cremations, and 1 site (CA-RIV-5492) contains burned-bone loci.

Of the 32 cultural resources, only 1 was previously recorded within the Project Site. This site (P-33-017111/CA-RIV-8908) consists of an artifact scatter composed of potsherds, debitage, and fire-affected clay fragments. Furthermore, the site record indicated that the site had been heavily disturbed, possibly from the construction of the Coachella Canal. Additionally, a very important habitation site (P-33-001766/CA-RIV-1766) is located south of the Project Site, in the Myoma Dunes. This site consists of

hearths, burned house remains, human-coprolite deposits, isolated cremations, and large concentrations of artifacts and animal bone.

The buried-site-sensitivity model (BSSM) for the Project Site revealed that the entire Project Site is sensitive for buried archaeological resources. Based on soil-series descriptions, the sensitive soils are approximately 5 feet in thickness and have potential to contain buried archaeological resources to their bases. However, it cannot be ruled out that early prehistoric sites could be present at greater depths in unknown buried soils. As for paleontological resources, based on the paleontological sensitivity study, it can be assumed that the upper 5 feet of the sediments underlying the Project Site should be assigned low paleontological resource sensitivity, due to past agricultural practices within the Project Site, and any deposits discovered at greater than 5 feet in depth below grade should be assigned high paleontological resource sensitivity.

Historical Resources

The records search indicated that five (5) previous survey projects were conducted within the records-search area. The historical-period sites are 2 refuse scatters, a segment of the Union Pacific Railroad/Southern Pacific Railroad, a segment of the Hayfield-Chino 220-kV transmission line, a utility pole, an unpaved road segment, the Coachella Canal, the East Side Dike, and a pipeline segment. All 3 isolated resources consisted of ceramic fragments.

Historical-period aerial images and USGS topographic maps were also reviewed to help identify any possible historical-period structures within the Project Site. Using that information, a possible historical period structure was observed in the north-central portion of the Project Site in aerial imagery from 1953. Also, on the 1958 Myoma California 7.5-minute USGS topographic map, four possible historical-period structures were observed within the main Project Site, as well as an orchard or grove of trees south of the main Project Site, where the 3-acre proposed substation parcel is located. These structures and the orchard/grove are likewise visible on the 1967 Myoma California 7.5-minute USGS topographic map. An additional four structures and a possible retention basin or pit were observed on the 1973 Myoma California 7.5-minute USGS topographic map. Finally, historical Sanborn maps were reviewed, but no maps of this type were available for the Project Site.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine whether a project would have a significant effect on the environment (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant impact to cultural resources if it would:

Threshold 5.4-1: Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5.

Threshold 5.4-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.

Threshold 5.4-3: Disturb any human remains, including those interred outside of formal cemeteries.

Methodology

The Cultural Resource and Paleontological Study involved archaeological archival research and a field survey of the entire Project Site (see **Appendix F**). Records searches and other archival research were conducted at the Eastern Information Center (EIC), Department of Anthropology, University of California, Riverside, on August 25, 2021. The goal of the records search was to review any previous archaeological projects that may have been conducted within the Project Site and identify previously recorded archaeological resources located on the property. The records search looked at all reports from archaeological work executed within a 1-mile radius of the Project Site, as well as all previously recorded historical-period and prehistoric cultural resources recorded within the same 1-mile radius.

Further archival research included reviewing primary and secondary sources for information pertinent to historical-period activities in the Project Site. Historical maps were consulted for information regarding specific historical-period land use in and around the Project Site. USGS Historical Topographic Map Collection, online Bureau of Land Management General Land Office Records, and historical maps on file at the EIC were also reviewed.

A pedestrian survey of the Project Site was conducted from August 1 to 15, 2022. Although a portion of the survey area had been previously surveyed, SRI archaeologists resurveyed the entire area to ensure continuity in the methods used throughout the entire survey area. The survey was conducted by a team of two archaeologists, with Tribal representatives from the Agua Caliente Band of Cahuilla Indians and Morongo Band of Mission Indians monitoring and assisting the survey efforts. The crew walked in straight-line transects across the survey area. The entire Project Site was surveyed using 49.2-foot transects; more-intensive (16.4-foot) intervals were used in areas of high surface-artifact concentration. A Trimble Juno 3D handheld Global Positioning System (GPS) unit was used to track transects and mark the presence of surface finds, including isolated resources, features, and sites.

Photographs were taken during the survey to record surface finds, topography, features, sites, and modern disturbances. Diagnostic and unique artifacts were point-provenienced,⁸ and because no artifacts were to be collected during the survey, any artifacts that were encountered were subjected to in-field analysis. Although most sites were small and could be recorded in their entirety, one site (SRI 15) was very large and contained hundreds of ceramic sherds among artifacts of several other types. The ceramic artifacts were fully analyzed, and the densities of artifacts were used to extrapolate the general assemblage at the site. Nonceramic artifacts at this site were all point-provenienced and analyzed.

8 Provenience is the location an artifact is found in an excavation, within the grid of an archaeology site.

Project Impacts

Threshold 5.4-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

The CRHR is the authoritative guide to California’s significant archaeological and historical resources, and it serves to identify, evaluate, register, and protect those resources. For the purposes of CEQA, a historical resource is any building, site, structure, object, or historic district listed in or eligible for listing in the CRHR (PRC 21084.1). A resource is considered eligible for listing in the CRHR if it meets any of the following criteria:

- a. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- b. Is associated with the lives of persons important in our past.
- c. 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.
- d. Has yielded, or may be likely to yield, information important in prehistory or history [PRC 5024.1(c)].

The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources or is not included in a local register of historical resources, does not preclude a lead agency from determining that the resource may be a historical resource.

The cultural records search indicated that five (5) previously conducted studies included work in portions of the Project Site. Another 75 reports were recorded related to land within the 1-mile records-search buffer. In total, 32 cultural resources were identified within the records-search area consisting of: 29 archaeological sites (20 prehistoric and 9 historical period) and 3 isolated prehistoric resources. Furthermore, the archaeological field survey identified 11 sites total within the Project Site: 3 historical-period agricultural sites associated with irrigation and 8 prehistoric artifact scatters largely composed of ceramic sherds and including smaller numbers of ground stone and flaked stone artifacts and pieces of fire-affected rock, worked shell, and burned bone. At the newly discovered site SRI-15, bone possibly associated with a prehistoric cremation was identified. In addition to sites, 30 isolated resources were identified: 26 prehistoric and 4 historical period. The isolated resources consisted of 1 multidirectional flake core, 3 marine mollusk shells, a Santa Fe Vintage Company bottle dating to 1939-1957, a Coca-Cola bottle dating to 1912-1914, 2 burned faunal bones, and 20 ceramic sherds. None of the isolated resources discovered during the records search or archaeological field survey meets any of the eligibility criteria. Therefore, all the isolated resources were determined to be not eligible for listing in the CRHR.

Nine new archaeological sites, SRI-2, SRI-11, SRI-15, SRI-38, SRI-42, SRI-82, SRI-239, SRI-769, and SRI-776 were identified during the survey of the Project Site. CVWD is currently constructing the North Indio Regional Flood Control Project to the east of the Project Site between Adams and Jefferson Streets. AS part of that CVWD project, the City approved a stockpile mass grading plan to allow soil exported during construction of these flood control facilities to be placed in an approximate 80-acre stockpile area in the

central portion of the Project Site. Because this stockpile area included several of the new archeological sites identified during the filed surveys, additional field investigations of these sites were conducted with the participation of tribal representatives prior to soil being deposited in this stockpile area.

SRI-38 is a historical-period site consisting of a cluster of agricultural features. The features include a concrete well foundation, a well, and a standpipe that may correspond to a historical-period structure. The features associated with this site exhibited poor to fair integrity. SRI-82 is also an a historical-period site consisting of a single concrete water standpipe.

SRI-2, SRI-11, SRI-42, SRI-239, and SRI-769 are sites containing scattered prehistoric artifacts.

SRI-776 was identified as a large prehistoric site including a variety of artifacts. As a portion of this site was located in the stockpile area, artifacts on the surface were collected.

Sites SRI-2, SRI-11, SRI-38, SRI-42, SRI-82, SRI-239, and SRI-769 are small, not associated with larger sites, and were determined to be not eligible for listing in the NRHP or CRHR because of the lack of cultural information associated with these sites. These sites have also been heavily disturbed by past agricultural activities, which have significantly reduced the integrity of these sites.

These sites are not eligible under Criteria (a), (b), or (c) of the NRHP or Criteria 1, 2, or 3 of the CRHR, as they cannot be associated with particular people or events, nor do they represent distinctive workmanship. The age and character of the sites also made it difficult to address any of the research themes under Criterion (d) of the NRHP or Criteria 4 of the CRHR. Additionally, no properties in the records-search area of one-mile radius are listed in the NRHP or the catalog of California Historic Landmarks (CHL).⁹

The previously recorded and revisited CA-RIV-12999 (Coachella Canal) is already listed in the CRHR because of its listing in the NRHP. The canal, though present within the Project Site, is buried beneath an unknown level of fill material and, for this reason, the integrity of the portion of the canal located on the Project Site could not be determined.

SRI-15 was identified as a large prehistoric artifact scatter. While a large variety and a large quantity of artifacts were discovered at SRI-15, agricultural activities and the construction of the dirt road that bisects the southern portion of the site have greatly reduced the site's integrity on the surface and within the plow zone. The presence of a subsurface feature suggests that the site maintains some degree of depth and subsurface integrity below the plow zone. Site SRI-15 was determined to be eligible for listing in the CRHR as it is likely to yield additional information that may address three of the research themes considered in the evaluation of cultural resource significance: chronology, trade and social interaction,

⁹ California Office of Historic Preservation. California Historic Landmarks (CHL). Riverside County. Available at: https://ohp.parks.ca.gov/?page_id=21452. Accessed November 2022.

and settlement and subsistence. Impacts to SRI-15 during construction of the Project is a potentially significant impact.

Development and implementation of an archeological data recovery plan, with monitoring by tribal monitors, is proposed to ensure the cultural resource information that may be yielded by this site is collected to potentially help address the three research themes identified above. Mitigation Measures **(MM) CUL-1** and **MM CUL-2** would be implemented to reduce the significance of Project impacts to less than significant. Prior to ground disturbing activities, **MM CUL-1** would require consultation with Tribal entities concerning SRI-15, so that appropriate measures are taken to adequately and respectfully mitigate any adverse effects that the development may have on the site. Should archaeological resources be encountered during subsurface excavation activities, implementation of **MM CUL-2** requires all activities near the discovery to cease, and a qualified archaeologist should be brought in to examine the discovery.

Threshold 5.4-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Artifacts discovered within the Project Site suggest the habitation of the area between A.D. 1000 and 1800. These relative dates, combined with the dating acquired from the thermal feature at SRI 15, indicate that the site was occupied between cal A.D. 1729 and 1808. To further contextualize the presence of Native peoples in the region, the ancient Lake Cahuilla most likely provided a site for Native peoples' camps along the edge of the receding lake during the Late Prehistoric period. However, it is unlikely that this area was used for extended periods of time. Rather, the archaeological evidence best suggests short-term encampments along the lakeshore for hunting, plant processing, and gathering of lacustrine resources.

Intact clay layers throughout the Project Site suggest that (1) agricultural practices did not disturb deeper deposits, (2) the ancient Lake Cahuilla's shoreline extended into the Project Site, and (3) it is likely that many of the surface finds are highly disturbed from agricultural practices over the last 100 years. The presence of artifacts on the surface and their sparse subsurface presence suggests that most of the 11 prehistoric sites retain limited integrity. SRI 15 is the only site that has a subsurface feature and thus maintains integrity. Notably, the thermal feature at SRI 15 is directly above clay deposits, indicating that the ancient Lake Cahuilla once extended into the area but that the use of the thermal feature occurred after the lake had begun to recede from the area, because there were no clay deposits above the feature. As such, Project construction and operation could potentially impact archaeological resources located on the Project Site. Implementation of **MM CUL-1** and **MM CUL-2** would reduce any significant impacts to less than significant.

Furthermore, the City's General Plan FEIR included a Historic Resources Survey Report, that included mitigation measures for the City to recognize individual properties and potential historic areas in the City and shall develop and implement standards that guide new development and alterations to existing

structures in historic districts and local conservation zones.¹⁰ However, the Project Site was not identified as a historic district or local conservation zone.

Threshold 5.4-3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Much of the prehistoric occupation of the Coachella Valley appears to be correlated with the presence of Lake Cahuilla, with most of the earliest known sites in the valley located at or near the ancient lakeshore. However, based on the cultural sensitivity of the area there is the potential to find human remains during subsurface grading activities. No human remains were found in the Project Site during the surveys. A small number of burned bone fragments were encountered during the field survey which could not be positively identified as human or animal, because of the heavily fragmented nature of the materials and the lack of diagnostic traits. The presence of these bone fragments in association with artifacts, such as beads, often associated with human burials/cremation in the area the Project Site is located in, indicates the potential for the presence of cremations within the Project Site. As previously discussed, Project construction would include grading and excavation, which could result in the discovery of previously unrecorded human remains, including Native American burials.

If human remains are uncovered during subsurface excavation activities, implementation of **MM CUL-3** would require notification of the County coroner within 24 hours of the discovery to handle and identify the human remains. If the remains are determined to be those of a Native American, the County coroner shall notify the Native American Heritage Commission (NAHC), who would ensure compliance with Public Resources Code (PRC) Section 5097.98.

CUMULATIVE IMPACTS

The City's General Plan EIR states that all future development within the City would be required to comply with applicable federal and state laws and regulations that concern the preservation of cultural resources, including the California Public Resources Code, the National Historic Preservation Act, and CEQA.¹¹ Determinations regarding the significance of impacts of future development projects on archaeological or paleontological resources would be made on a case-by-case basis and, if necessary, the applicants of future projects would be required to implement appropriate mitigation measures. Furthermore, the Project's potential impacts to archaeological and human remains would be less than significant with the implementation of the recommended mitigation measures. The analysis of cumulative impacts to historic resources is based on whether impacts of the Project and future development within the City, when taken as a whole, substantially diminish the number of historic resources within the same or similar context or property type. As the Project's impacts would be

10 City of Indio. *City of Indio General Plan Update Final EIR*. June 2019. "Chapter 4.5, Cultural Resources and Tribal Cultural Resources." Pages 4.5-30 and 4.5-31. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed November 2022.

11 City of Indio. *City of Indio General Plan Final EIR*. June 2019. "Chapter 4.5, Cultural Resources and Tribal Cultural Resources." Page 4.5-32. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed November 2022.

considered less than significant with mitigation measures CUL-1 through CUL-3 included, the Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

The following mitigation measures would further reduce cultural resource impacts during construction of the Project:

MM CUL-1: SRI 15 Data Recovery. Prior to the implementation of mass grading, clearing, or grubbing, given the subsurface component of SRI 15 and the potential for human remains, consultation with Tribal entities concerning the Site should occur so that appropriate measures are taken to adequately and respectfully mitigate any adverse effects that the development may have on the Site.

Because implementation of the Project as proposed would significantly impact the site, including the planned development of the SRI-15 area, avoidance of the SRI 15 site is not feasible. Therefore, an archaeological data recovery plan shall be drafted and implemented for the site in a manner consistent with established professional archaeological standards and in consultation with the Agua Caliente, Morongo, and Cabazon Tribes. Data recovery efforts will be led by a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and monitored by tribal representatives. This archaeological data recovery plan will include the professional qualifications required of key staff and detail excavation methods as well as methods used to analyze recovered artifacts and samples. Implementation of the data recovery plan will reduce to an insignificant level potential Project effects on SRI 15.

MM CUL-2: Archaeological Monitoring. Prior to the start of Project ground disturbance, including demolition and vegetation removal, a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be retained to prepare and implement a written Cultural Resource Monitoring and Treatment Plan (CRMTP) that is consistent with established professional archaeological standards and subject to the approval of the City. Implementation of the CRMTP will reduce to an insignificant level potential Project effects on known archaeological resources as well as on unanticipated archaeological resources that may be unearthed during construction, which would include potential prehistoric and historical-period discoveries. The CRMTP shall detail the pertinent historic context and anticipated research themes within which cultural resources in the Project Site can be treated and evaluated. The plan shall include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Project site, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements. The CRMTP shall include detailed methods to be taken during stop work situations, assessment of preservation in place or recovery

of potential cultural deposits, and the process for evaluating resources for CRHR eligibility. The CRMTP shall also include a section describing the protocol in the event that unanticipated human remains are discovered during Project construction.

MM CUL-3: Human Remains. If human remains are identified during construction, all construction activities near the remains must cease immediately, and the area must be secured. The Riverside County Coroner's Office must be contacted immediately, in accordance with the California Health and Safety Code (HSC) Section 7050.5(b). If the determination is made by the coroner that the remains are those of a Native American, HSC 7050.5(c) requires that the coroner contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. The NAHC will then select a Most Likely Descendant and will coordinate with that individual regarding the treatment and final disposition (repatriation) of the human remains, according to the provisions of PRC 5097.98 and any other legal/regulatory requirements. Any encountered human remains will be treated with the proper dignity and respect.

LEVEL OF SIGNIFICANCE OF MITIGATION

With implementation of MM CUL-1 through MM CUL-3, impacts associated with cultural resources would be less than significant. Therefore, no significant unavoidable adverse impacts relating to cultural resources have been identified.

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) provides the content and analysis required by Public Resources Code, Section 21100(b)(3) and described in Appendix F to the Guidelines for the Implementation of the California Environmental Quality Act (14 California Code of Regulations Sections 15000 et seq). This section of the Draft Environmental Impact Report (Draft EIR) evaluates the proposed Desert Retreat Specific Plan's (Desert Retreat or Project) potential impacts on energy resources, focusing on the following three resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section also evaluates the demand for energy resources attributable to the Project during construction and operation, and makes a determination regarding the Project's use and conservation of energy resources. This section demonstrates whether the planned electrical, natural gas, and petroleum-based fuel supplies and distribution systems are adequate to meet the Project's forecasted energy consumption. The information presented herein is based, in part, on supporting calculations for the Project's energy use based on the California Emissions Estimator Model (CalEEMod) outputs, as calculated for **Section 5.7: Greenhouse Gas Emissions**. Energy calculations are provided in **Appendix G: Energy Data** to this Draft EIR.

REGULATORY SETTING

Federal Setting

Corporate Average Fuel Economy (CAFE) Standards

Established by the U.S. Congress in 1975, the CAFE standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and the United States Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 miles per gallons (mpg). In March 2020, the United States Department of Transportation (USDOT) and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks, as well as establishes new standards covering model years 2021 through 2026.¹

1 National Highway Traffic Safety Administration (NHTSA). "Corporate Average Fuel Economy." <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>. Accessed November 2022.

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.² USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.³

State Setting

State Senate Bill 1389

Senate Bill (SB) 1389 (PRC Sections 25300-25323; SB 1389) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. The CEC prepares updates to these assessments and associated policy recommendations in alternate years (PRC Section 25302[d]). Preparation of the Integrated Energy Policy Report involves close collaboration with federal, State, and local agencies and a wide variety of stakeholders in an extensive public process to identify critical energy issues and develop strategies to address those issues. The most recently approved report and update, the 2021 Integrated Energy Policy Report Update, addresses the State's implementation of SB 350, integrated resource planning, distributed energy resources, transportation electrification, electricity system resilience and efficiency, barriers faced by disadvantaged communities, demand response, renewable energy, natural gas supplies, preliminary transportation energy demand forecast, and climate adaptation and resiliency.⁴

Renewables Portfolio Standard

As amended by SB 350, California's Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030. SB 100, signed on September 10, 2018, is the 100 Percent Clean Energy Act of 2018. SB 100 updates the goals of California's RPS and SB 350 to the following: achieve 50 percent renewable resources target by December 31, 2026 and achieve a 60 percent target by December 31, 2030. SB 100 also requires that eligible renewable energy resources and zero-carbon resources supply

2 United States Environmental Protection Agency (USEPA). *EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles*. August 2011. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100BOT1.PDF?Dockey=P100BOT1.PDF>. Accessed November 2022.

3 USEPA, Federal Register/Vol. 81, No. 206/Tuesday, October 25, 2016, Rules and Regulations. *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2*. <https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf>. Accessed November 2022.

4 CEC. "Final 2021 Integrated Energy Policy Report." <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>. Accessed November 2022.

100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

SB 100 requires the CEC, California Public Utilities Commission (CPUC), and California Air Resources Board (CARB) to complete a joint agency report to the Legislature evaluating the 100 percent zero-carbon electricity policy. In consultation with all California balancing authorities and as part of a public process, the three agencies will issue a report to the Legislature by January 1, 2021, and at least every four years afterward. The joint report shall include: (1) a review of the 100 percent zero-carbon policy focused on technologies, forecasts, then-existing transmission, and the maintenance of safety, environmental and public safety protection, affordability, and system and local reliability; (2) an evaluation identifying the potential benefits and impacts on system and local reliability associated with achieving the policy; (3) an evaluation identifying the nature of any anticipated financial costs and benefits to electric, gas, and water utilities, including customer rate impacts and benefits; (4) the barriers to, and benefits of, achieving the policy; and (5) alternative scenarios in which the policy can be achieved and the estimated costs and benefits of each scenario. The latest joint agency report was published on March 15, 2021.⁵

California’s Energy Efficiency Standards for Residential and Nonresidential Buildings

Part 6 of Title 24 of the CCR, regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The CEC published the 2019 California Building Standards Code (Cal. Code Regs., Title 24) July 1, 2019, with an effective date of January 1, 2020.⁶

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), commonly referred to as CALGreen, establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. CALGreen is periodically amended; the most recent 2019 standards became effective on January 1, 2020.

The CEC periodically amends and enforces Appliance Efficiency Regulations contained in Title 20 of the CCR. The regulations establish water and energy efficiency standards for both federally regulated appliances and non-federally regulated appliances.⁷

5 CEC. *2021 SB 100 Joint Agency Report, Achieving 100 Percent Clean Electricity in California: An Initial Assessment*. March 2021. <https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237167&DocumentContentId=70349>. Accessed November 2022.

6 CEC. “2019 Building Energy Efficiency Standards.” <https://www.energy.ca.gov/title24/2019standards/>. Accessed November 2022.

7 CEC. “Appliance Efficiency Proceedings - Title 20.” <https://www.energy.ca.gov/rules-and-regulations/appliance-efficiency-regulations-title-20/appliance-efficiency-proceedings#accordion-2528>. Accessed November 2022.

Transportation Sector Energy Related Regulations

Section 5.7: Greenhouse Gas Emissions of this Draft EIR discusses various statutes that address climate change, which also address energy generation and consumption. As expressed in these statutes, meeting the State’s climate change goals requires focused action to quickly transform the State’s energy system away from fuels that generate GHGs. The following statutes direct various State agencies to conduct assessments and forecasts that are used to develop recommendations for energy policies and programs that conserve State resources, provide reliable energy, protect the environment, enhance the State’s economy, and protect public health and safety.

The State has provided a climate policy portfolio that addresses emissions across sectors including electricity, buildings, transportation, land use and agriculture, and industry. The transportation sector is the largest source of GHG emissions in the State and various State policies call for speeding the transition to zero-emission vehicles (ZEVs), which among other things reduce energy use, including:

- The CARB’s Scoping Plan, which describes California’s approach for achieving its GHG reduction goals. The plan was developed in 2008 and updated in 2014 and 2017;
- Executive Order B-16-2012 set a goal of reaching 1.5 million ZEVs on California roadways by 2025; and
- Executive Order B-48-18 calls for at least 5 million ZEVs on California roads by 2030 and spurs the installation of 250,000 plug-in electric vehicle chargers, including 10,000 direct fast current chargers, and 200 hydrogen refueling stations by 2025.

The Advanced Clean Cars II rule requires all new vehicles sold in California to be ZEVs by 2035. Executive Order B-55-18 established a Statewide goal to achieve carbon neutrality by 2045. Although these statutes are broader than the energy sector, reducing GHG emissions from California’s energy system, including transportation, is a fundamental part of the effort to reduce reliance on fossil fuels.

Other State regulations that indirectly reduce fuel consumption include:

- AB 1493 (Pavley, 2002), which required CARB to adopt regulations to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks for model years 2009-2016.⁸
- EO S-1-07, as issued by Governor Schwarzenegger, called for a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB by 2020.⁹

Executive Order S-03-05

Executive Order S-03-05 mandates that California emit 80 percent fewer GHGs in 2050 than it emitted in 1990. Energy efficiency and reduced vehicle miles traveled (VMT) would play important roles in achieving

8 California Air Resources Board (CARB). “California’s Greenhouse Gas Vehicle Emission Standards under Assembly Bill 1943 of 2002 (Pavley).” www.arb.ca.gov/cc/ccms/ccms.htm. Accessed November 2022.

9 Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the “lifecycle” of a transportation fuel.

this goal. As previously mentioned, GHG reduction efforts increase energy efficiency which also reduces the consumption of petroleum-based fuels.

California Air Resources Board

In 2012, CARB approved the Advanced Clean Cars (ACC) program, an emissions-control program for passenger vehicles and light-duty trucks for model years 2017-2025, thereby continuing the regulatory framework established under the Pavley standards beyond model year 2016. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero-emission vehicles. The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the ZEV regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.¹⁰ Consistent with the other State-reduction policies geared toward reducing GHG emissions, the efforts to speed up integration of ZEVs and PHEVs would reduce the consumption of petroleum based fuels.

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, CCR Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by this class of vehicles.

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, CCR Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen (NOx) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023 with compliance resulting in this class of vehicles using petroleum-based fuel in a more efficient manner thereby reducing diesel fuel consumption.

CARB is responsible for enforcing CCR Title 13 Sections 2449(d)(3) and 2485, which limit idling from both on-road and off-road diesel-powered equipment to no greater than five minutes at any location. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

¹⁰ CARB. "Advanced Clean Cars Program." <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program>. Accessed November 2022.

Sustainable Communities Strategy

SB 375, the Sustainable Communities and Climate Protection Act, coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options. These actions achieve their objectives in part through increased energy efficiency. Specific to energy conservation, electric vehicles, natural gas vehicles, transit/rail; more compact development patterns that reduce vehicle travel also demand less energy per capita. Reducing vehicle travel also reduces energy related to producing and distributing fuels and vehicles as well as the construction and maintenance of roads.

California Environmental Quality Act

In accordance with Appendices F and G of the CEQA Guidelines, and in order to ensure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (PRC Section 21100(b)(3)). The 2020 update to Appendix G of the CEQA Guidelines now provides that if a project would result in potentially significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a State or local plan for renewable energy or energy efficiency, then an EIR shall be prepared for the project that includes mitigation measures for that energy use. The EIR's analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project as further described below under Appendix F of the CEQA Guidelines.

- Appendix F of the CEQA Guidelines provides a list of energy-related topics that may be discussed in an EIR, where topics are applicable or relevant to the project, including:
- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
- The effects of the project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the project on peak and base period demands for electricity and other forms of energy;
- The degree to which the project complies with existing energy standards;
- The effects of the project on energy resources; and
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Regional

Southern California Association of Governments

The SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS)¹¹ is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, with a specific goal of achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 19 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level. Although the RTP/SCS is not technically an energy efficiency plan, consistency with the RTP/SCS has energy implications, including the reduction of VMT which reduces GHG emissions and has the co-benefit of reducing fossil fuel consumption from travel to and from a project.

Local

Coachella Valley Association of Governments Desert Cities Energy Partnership

The Coachella Valley Association of Governments (CVAG) is a sub-regional organization within the Southern California Association of Governments (SCAG). CVAG operates as part of larger jurisdictional or regional teams within the Coachella Valley, made up of ten cities, Riverside County, and two Native American Indian tribes. CVAG initiated the Desert Cities Energy Partnership with SCE and SoCalGas through an Agreement effective in January 2010. The First Amendment to the agreement between CVAG and the utilities to continue the partnership through December 31, 2014, was authorized by the CVAG Executive Committee in December 2012. Since then, the Second through Fifth Amendments to the agreement extended the Partnership each year and provided an authorized budget. The Fifth Amendment was approved to extend the program to December 2018, including a reduction in the SCE budget amount for the Desert Cities Energy Partnership. SCE, SoCalGas, and the CPUC continue to evaluate the benefits as well as the future of these partnerships.

The goal of the Desert Cities Energy Partnership is “to help local governments effectively lead their communities to increase energy efficiency, reduce greenhouse gas emissions, protect air quality and ensure that their communities are more livable and sustainable.” The partnership provides performance-based opportunities for the Coachella Valley jurisdictions to demonstrate energy efficiency leadership in our communities through energy saving actions.

City of Indio General Plan

The Conservation chapter of the City’s General Plan¹² was prepared to address the conservation, development, and sustainable use of Indio’s natural resources, including, but not limited to, water, soils,

11 Southern California Association of Governments (SCAG). *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies Adopted Final*. “Chapter 1: About the Plan.” https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-01-plan_0.pdf?1606001208. Accessed November 2022.

12 City of Indio. *General Plan*. “Chapter 8: Conservation.” <https://www.indio.org/home/showpublisheddocument/894/637874287825370000>. Accessed November 2022.

natural gas, fossil fuels, renewable energy sources, and mineral deposits. The Conservation chapter includes the following policies associated with energy conservation and renewables:

Policy CE-3.1: Regional energy leadership. Continue involvement with CVAG, Imperial Irrigation District, and the Desert Energy Cities Partnership and be a regional leader in energy conservation, efficiency, and renewables implementation. Seek opportunities to join a Community Choice Energy program.

Policy CE-3.2: Residential energy efficiency education. Maintain a designated City staff member to oversee an Energy Awareness Program that provides lectures, seminars, and training on green building.

Policy CE-3.3: Low-income weatherization assistance program. Partner with Imperial Irrigation District and SoCal Gas to promote existing programs that provide financial assistance to low-income households for weatherization improvements and heating, ventilation, and air conditioning (HVAC) tune-ups.

Policy CE-3.4: Energy audits. Require energy audits to be performed on residences prior to sale or transfer of title and provide prospective owners with recommendations for retrofit measures.

Policy CE-3.5: Commercial benchmarking. Promote commercial benchmarking using the Environmental Protection Agency’s ENERGY STAR Portfolio Manager or equivalent benchmarking tool.

Policy CE-3.6: Zero net energy use. Implement building design requirements to achieve zero net energy use for new residential development by 2020 and zero net energy use for new commercial development by 2030 consistent with the California Public Utilities Commission’s California Long Term Energy Efficiency Strategic Plan.

Policy CE-3.7: Solar financing. Promote installation of solar panels by continuing to support Indio’s Ygrene and HERO Programs and by distributing information on actual savings achieved by PV systems.

Policy CE-3.8: Building energy use. Encourage the use of building placement, design, and construction techniques to limit energy consumption, reduce the heat island effect, increase renewable energy use, and maintain solar access.

Policy CE-3.9: Municipal buildings. Continue to take a leadership role in ensuring that municipal buildings are designed to be as sustainable and energy efficient as feasible by:

- Requiring new City buildings to achieve LEED Gold certification or an equivalent standard;
- Retrofitting existing buildings with renewable energy infrastructure or updating energy efficient appliances and fixtures;
- Implementing stringent water conservation measures; Capturing and reusing rainwater to the extent feasible; and
- Planting new native or low water use trees in conjunction with City-initiated projects to expand Indio’s urban forest, decrease demand for air conditioning, and reduce the heat island effect.

Policy CE-3.10: Municipal vehicle fleet upgrades. When replacing or adding new municipal vehicles, require the analysis of alternative-fuel vehicles along with gasoline-fueled vehicles. When appropriate and economically-feasible, preference the purchase of alternative-fuel vehicles over gasoline-fueled vehicles.

Policy CE-3.11: Grant funding. Seek grant funding to implement a “green building” demonstration project to promote awareness of available “green” technologies that work within Indio’s desert setting.

Policy CE-3.12: Alternative energy. Explore future renewable energy sources utilizing diverse energy resources with Imperial Irrigations District (IID) and other agencies. Facilitate the development of small-scale alternative energy infrastructure.

Policy CE-3.13: Innovative systems. Identify opportunities to implement innovative infrastructure systems that utilize natural ecological processes.

Policy CE-3.14: Sustainability commission. Work with the Sustainability Commission to identify and develop energy efficiency and sustainability programs.

ENVIRONMENTAL SETTING

Existing Conditions

Electricity

Electricity is typically a manufactured resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for use by customers. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

According to the California Energy Commission's (CEC), the State of California consumed approximately 279,000 GWh of electricity in 2020, with electricity demand projected to rise to 340,000 GWh in 2035, the furthest year of currently available projections.¹³

The Project Site is within the Imperial Irrigation District (IID) service area. The IID energy service territory covers 6,471 square miles, including all of Imperial County along with parts of Riverside and San Diego counties.¹⁴ The IID planning area used approximately 3,516 GWh of electricity in 2021, of which 1,906 GWh were derived from residential uses¹⁵ The CEC estimates that electricity consumption within the IID

13 California Energy Commission (CEC). *Final 2021 Integrated Energy Policy Report Update, Volume IV: California Energy Demand Forecast Update*. February 2022. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241581>. Accessed November 2022.

14 Imperial Irrigation District (IID). "Energy Service Maps." <https://www.iid.com/energy/about-iid-energy/energy-service-maps>. Accessed November 2022.

15 IID. *Imperial Irrigation District 2021 Annual Report, published August 8, 2022*. <https://www.iid.com/about-iid/mission-vision-statements/annual-reports>. Accessed November 2022.

planning area will be approximately 4,320 GWh annually by 2032, when the Project would be fully built out.¹⁶

The nearest transmission line to the Project Site includes an east/west 92 kilovolt (kV) line along 40th Avenue, directly south of the Project Site.¹⁷ No electricity is currently used on the vacant Project Site.

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as transportation fuel. Natural gas is primarily measured in terms of cubic feet (cf), as well as in terms of British thermal units (Btu) and Therms.¹⁸

The Southern California Gas Company (SoCalGas) is the natural gas purveyor within the City. The SoCalGas service area reaches 21.8 million consumers through 5.9 million meters in more than 500 communities, covering an area of approximately 24,000 square miles throughout Central and Southern California.¹⁹ The SoCalGas planning area had a natural gas throughput of approximately 245 billion cubic feet (Bcf) in 2021 and is expected to decline to approximately 170 Bcf by 2035.²⁰

Statewide natural gas demand is projected to decline at an annual rate of 1.1 percent each year through 2035.²¹ The decline in demand is due to modest economic growth, and CPUC-mandated energy efficiency (EE) standards and programs and SB 350 goals. Other factors that contribute to the downward trend are tighter standards created by revised Title 24 Codes and Standards, renewable electricity goals, a decline in core commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI). By comparison, the 2018 California Gas Report projected an annual decline in demand of 0.74 percent over the forecast horizon.

16 CEC. "California Energy Demand Forecast, 2021-2035." <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report/2021-1>. Accessed November 2022.

17 CEC. "Electric Infrastructure Map." <https://cecgis-caenergy.opendata.arcgis.com/app/ad8323410d9b47c1b1a9f751d62fe495>. Accessed November 2022.

18 One Therm is equivalent to 100,000 British thermal units (BTU) or 100 kBTU. A Therm is approximately the energy equivalent of burning 100 cubic feet (1 cf) of natural gas. The conversion of kBTU to cubic feet uses the factor of 1 cf to 1.037 kBTU.

19 Southern California Gas (SoCalGas). "Company Profile." <https://www.socalgas.com/about-us/company-profile>. Accessed November 2022.

20 California Gas and Electric Utilities. *2022 California Gas Report*. https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf. Accessed November 2022.

21 California Gas and Electric Utilities. *2022 California Gas Report*. https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf. Accessed November 2022.

Petroleum Based Fuel

Crude oil is a mixture of hydrocarbons that exists as a liquid in underground geologic formations and remains a liquid when brought to the surface.²² Petroleum products are produced from the processing of crude oil and other liquids and include transportation-related fuels such as gasoline and diesel. Petroleum is a worldwide commodity. According to the U.S. Energy Information Administration (EIA), California consumed approximately 6,656 million barrels in 2020, the most recent year of publicly available data.²³ The EIA forecasts a national oil supply of 17.7 million barrels per day (mb/d) in 2032, when the Project would be fully built out.²⁴ This equates to approximately 6,475 million barrels per year (mb/y) or 271,954 million gallons per year (mg/y).²⁵

Over the last several decades, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs emissions from the transportation sector, and reduce vehicle travel. Incentive programs, such as the CEC's Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP), are helping the State to reduce its dependency on gasoline. The CEC predicts that the demand for gasoline will continue to decline over the upcoming years, and there will be an increase in the use of alternative fuels.²⁶

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have a significant impact to energy resources, if it would:

- Threshold 5.5-1:** Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation.
- Threshold 5.5-2:** Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Methodology

Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using CalEEMod. Developed by the California Air Pollution Control Officers Association (CAPCOA), CalEEMod is a Statewide land use emissions computer model that estimates

22 United States Energy Information Administration (US EIA). "Frequently Asked Questions." <https://www.eia.gov/tools/faqs/faq.php?id=40&t=6>. Accessed November 2022.

23 US EIA, "Independent Statistics & Analysis," Table F16: Total Petroleum Consumption Estimates, 2018. https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US. Accessed November 2022.

24 US EIA. "Annual Energy Outlook 2020," Table 11. Petroleum and Other Liquids Supply and Disposition. <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=11-AEO2020&cases=ref2020&sourcekey=0>. Accessed November 2022.

25 One oil barrel is equivalent to 42 gallons.

26 CEC. *Final 2021 Integrated Energy Policy Report, Volume IV: California Energy Demand Forecast*. February 2022. <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>. Accessed November 2022.

construction and operational emissions from a variety of land use projects.²⁷ This section utilizes the GHG worksheets and CalEEMod output data found in **Appendix G** to this Draft EIR. Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power would be temporary, limited, and would cease upon the completion of construction. In terms of natural gas, construction activities typically do not involve the consumption of natural gas, and, as such, natural gas consumption associated with construction activities was assumed to be negligible.

Fuel consumption from on-site off-road heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in **Appendix D** of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook. Fuel consumption from construction worker, vendor, and delivery trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2021 model, which provides the total annual VMT and fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50 percent light duty gasoline automobiles and 50 percent light duty gasoline trucks. Construction vendor and delivery trucks were assumed to be heavy-duty diesel trucks. Refer to **Appendix D** of this EIR for detailed calculations.

Operation

The Project's potential energy consumption analyzed the anticipated future demand of the proposed uses. The Project's anticipated electricity and natural gas demands during operation are based in the CalEEMod output data found in **Appendix G** to this Draft EIR. Potential petroleum impacts are associated with operational vehicle trips. The Project is expected to generate approximately 6,470 daily trips.²⁸ Because CalEEMod does not directly estimate fuel consumption, fuel rate and VMT data from CARB's EMFAC 2021 model were used to develop fuel-efficiency factors for gasoline and diesel fuel, in units of miles per gallon. Based on the Project's annual VMT forecast, gasoline and diesel consumption rates were calculated using the County-specific miles per gallon based on the EMFAC 2021 model. Trip rate and trip length data from CalEEMod were used to estimate the total VMT of on-road motor vehicles that would occur from operational uses. The fuel-efficiency factors were applied to the estimated VMT to determine the quantity of gasoline and diesel that would be used annually. Supporting calculations are provided in **Appendix D** of this Draft EIR. These calculations were used to determine if the Project would cause the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F of the CEQA Guidelines.

27 California Air Pollution Control Officers Association. "CalEEMod." <http://www.aqmd.gov/caleemod/download-model>. Accessed November 2022.

28 Fehr and Peers. *Desert Retreat Specific Plan Project Transportation Study*. November 2022. See **Appendix K**.

Project Impacts

Threshold 5.5-1: Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation?

As discussed previously, the proposed Project would consume energy during construction and operational activities. Sources of energy for these activities include electricity usage, natural gas consumption, and transportation fuels such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for Project construction and operations. For purposes of this analysis, Project maintenance would include activities such as painting, landscaping, and architectural coatings. Energy usage related to Project maintenance activities are included as part of Project operations.

Construction Impacts

During construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control, and on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment within the Project Site, construction worker travel, haul trips, and delivery trips.

As shown in **Table 5.5-1: Summary of Energy Use During Construction** and discussed below, a total of approximately 80,342 kilowatt-hours (kWh) of electricity, 1,626,495 gallons of diesel fuel, and 149,059 gallons of gasoline is estimated to be consumed during construction of the proposed Project.

TABLE 5.5-1 SUMMARY OF ENERGY USE DURING CONSTRUCTION	
Fuel Type	Quantity
Electricity	
Water Conveyance	80,342 kWh
Diesel	
Off-Road Construction Equipment	1,297,268 gallons
On-Road Motor Vehicles	329,227 gallons
Total	1,626,495 gallons
Gasoline	
Off-Road Construction Equipment	0 gallons
On-Road Motor Vehicles	149,059 gallons
Total	149,059 gallons

Refer to Table 1 in Appendix G: Energy Data.

Electricity

During construction, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electronic equipment, and other construction activities necessitating electrical power. Electricity would be supplied to the Project Site by IID distribution infrastructure and would be obtained from existing substations and electrical lines in and around the Project Site.

As shown in **Table 5.5-1**, a total of approximately 80,342 kWh of electricity is anticipated to be consumed during construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Additionally, Title 24 requirements would apply to construction lighting if duration were to exceed 120 days, which includes limits on the wattage allowed per specified area for energy conservation. Due to the relatively short duration of the construction process, and the fact that the extent of electricity consumption is inherent to construction projects of this size and nature, electricity consumption impacts would not be considered excessive or substantial with respect to regional supplies. Therefore, construction of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of electricity and impacts would be less than significant.

Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would likely not be needed to support construction activities; thus, there would be little to no demand generated by construction. Therefore, construction of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of natural gas and impacts would be less than significant.

Transportation Energy

Project construction would consume energy in the form of petroleum-based fuels associated with use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., for deliveries of construction supplies and materials).

The petroleum-based fuel use summary provided in **Table 5.5-1** represents the amount of transportation energy that could potentially be consumed during construction based on a conservative set of assumptions. As shown, on- and off-road vehicles would consume an estimated 1,775,555 gallons of petroleum (149,059 gallons of gasoline and 1,626,495 gallons of diesel fuel) throughout the proposed Project's construction period. For purposes of comparison, the EIA forecasts a national oil supply of 6,471

mg/y in 2024, which is the first year of construction for the proposed Project.²⁹ Construction of the proposed Project would account for less than 0.01 percent of the projected annual oil supply in 2024.

Due to the relatively short duration of the construction process, and the fact that the extent of fuel consumption is inherent to construction projects of this size and nature, fuel consumption impacts would not be considered excessive or substantial with respect to regional fuel supplies. The energy demands during construction would be typical of construction projects of this size and would not necessitate additional energy facilities or distribution infrastructure. The Project will also comply with Sections 2485 in Title 13 of the California Code of Regulations, which requires the idling of all diesel-fueled, commercial vehicles be limited to five minutes at any location. As a result, the Project would not result in inefficient, or unnecessary consumption of transportation resources during construction. Accordingly, transportation resource demands during construction would be less than significant.

Operation

During operation of the Project, energy would be consumed for multiple purposes associated with the proposed uses, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery, as well as charging electric vehicles and golf carts. Energy would also be consumed during operation of the Project in the form of water usage, solid waste disposal, and vehicle trips, among others. The Project is expected to generate approximately 6,470 daily trips.³⁰ As shown in **Table 5.5-2: Summary of Annual Energy Use During Operation**, the Project's energy demand would be approximately 8,038,140 kWh of electricity per year, 22,688,900 kBtu of natural gas per year, and 643,348 gallons of transportation fuel per year.

The Project would comply with CALGreen building standards by incorporating eco-friendly building materials, systems, and features wherever feasible, including Energy Star appliances, water saving/low flow fixtures, non-VOC paints/adhesives, drought tolerant planting, and high-performance building envelopment.

**TABLE 5.5-2
SUMMARY OF ANNUAL ENERGY USE DURING OPERATION**

Source	Units	Quantity
Electricity		
Residences	kWh/yr	6,377,330
Water	kWh/yr	1,660,810
Total Electricity	kWh/yr	8,038,140

29 EIA. "Annual Energy Outlook 2020. Table 11. Petroleum and Other Liquids Supply and Disposition." <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=11-AEO2020&cases=ref2020&sourcekey=0>. Accessed November 2022.

30 Fehr and Peers. *Desert Retreat Specific Plan Project Transportation Study*. November 2022. See **Appendix K**.

**TABLE 5.5-2
SUMMARY OF ANNUAL ENERGY USE DURING OPERATION**

Source	Units	Quantity
Natural Gas		
Residences	kBTU/yr	22,688,900
Total Natural gas	kBTU/yr	22,688,900
Transportation Energy		
Diesel	Gallons/yr	199,566
Gasoline	Gallons/yr	443,782
Total Fuel	Gallons/yr	643,348

Notes: kWh/yr. = kilowatt-hours per year; kBTU/yr. = thousand British Thermal Units per year.

Electricity and Natural Gas for the Project is total yearly operational usage. Mobile gasoline and diesel usage were calculated using CalEEMod output data

Refer to Table 2 in Appendix G: Energy Data.

Electricity

As shown in **Table 5.5-2**, buildout of the Project would result in a projected demand for electricity, totaling 8,038,140 kWh (8 GWh) per year. Electricity would be supplied to the Project Site by IID distribution infrastructure and would be obtained from existing substations and electrical lines in and around the Project Site. The additional power load for the Project will require IID to construct a new substation with two 25 MVA (megavoltampere) transformer banks. A full analysis of the proposed substation and required IID infrastructure is provided in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR. The CEC estimates that electricity consumption within the IID planning area will be approximately 4,320 GWh annually by 2032, when the Project would be fully built out.³¹ The Project's electricity demand would account for approximately 0.2 percent of the 2032 electricity forecast.

Natural Gas

As shown in **Table 5.5-2**, buildout of the Project is projected to generate an on-site demand for natural gas totaling 22,688,900 kBTU or 0.02 Bcf) per year. The SoCalGas planning area is expected to have a throughput of approximately 170 Bcf by 2035.³² The Project would account for approximately 0.01 percent of the 2035 annual forecasted supply in SoCalGas' planning area.

31 CEC. "California Energy Demand Forecast, 2021-2035." <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report/2021-1>. Accessed November 2022.

32 California Gas and Electric Utilities. 2022 California Gas Report. https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf. Accessed November 2022.

Transportation Energy

As shown in Table 5.5-2, buildout of the Project is projected to generate a demand of 643,348 gallons of transportation fuel. For purposes of comparison, the EIA forecasts a national oil supply 271,954 mg/y in 2032, then the Project would be built out.³³ Operation of the Project would account for less than 0.01 percent of the projected annual oil supply in 2032.

Energy Resource Efficiency

CEQA Guidelines Appendix F recommends a quantification of the Project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project's life cycle, including construction, operation, maintenance, and/or removal. The Project's energy requirements were calculated based on land use inputs from CalEEMod for electricity and natural gas usage. The calculations also considered energy efficiency measures, such as Title 24, 2019 CALGreen, and vehicle fuel economy standards. As energy consumption during Project construction activities would be relatively negligible, the Project is not anticipated to affect regional energy consumption in years during the construction period. In sum, energy consumption during Project construction and operations in the context of regional supplies would be relatively negligible and energy requirements are within IID's and SoCalGas' forecasted supply delivery capacity. Moreover, the Project's gasoline and diesel fuel demand related to vehicle travel and on-site operations would account for a small percentage of the forecasted gas and diesel consumption.

Furthermore, these forecasts of energy consumption are likely to overstate actual Project consumption as it is anticipated that the recent trend of stricter regulatory requirements with regard to energy efficiency that have occurred over the last twenty years would continue through buildout of the proposed Project, such as more energy efficient Title 24 requirements, as well as energy efficiency requirements related to achieving the SB 350 goals to double energy efficiency standards by the year 2030, that would occur throughout the construction and operation of the Project. As electricity and natural gas usage at the Project Site would comply with Title 24 standards as well as CalGreen, Project construction and operations would comply with applicable energy standards with regards to electricity and natural gas usage.

With regards to transportation fuels, trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are focused on reducing criteria pollutant emissions, compliance with these regulations would also result in a more efficient use of construction-related fuel consumption. In addition, during Project operations, vehicles traveling to and from the Project Site would comply with CAFE fuel economy standards as well as with Pavley standards and LCFS, which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFE standards. Therefore,

33 One oil barrel is equivalent to 42 gallons.

Project construction and operational activities would comply with existing energy standards with regards to transportation fuel consumption.

In terms of transportation-related energy usage, the Project would be consistent with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. Transit is provided by Sun Line Transit Agency (SLTA). The closest bus stop to the Project Site is located approximately 2.6 miles away. Although there are no nearby transit stops to the Project Site, the Project encourages multimodal transportation through use of bicycle paths and sidewalks. Adjacent to the Project Site, there is an existing Class I bicycle path on Jefferson Street between Avenue 38 and Avenue 39, Class II bicycle lanes on Avenue 38 between Dune Palms Road and Madison Street, and Class II bicycle lanes on Avenue 40 between Jefferson Street and Monroe Street. The City's General Plan proposes a Class I bicycle path on Jefferson Street between Avenue 38 and Varner Road and Class II bicycle lanes on Avenue 40 between Fifties Way and Monroe Street. Given the Project's proximity to the Shadow Hills Golf Club, many of the adjacent bicycle facilities and pedestrian sidewalks are shared with golf carts. These features would serve to reduce VMT and associated transportation fuel consumption. During the operational lifetime of the Project, newer vehicles sold on the market would be required to comply with CAFE fuel economy standards expected to incrementally take effect. Accordingly, fuel consumption is anticipated to decrease each year through implementation of regulations that require higher energy efficiencies and higher efficient and alternative fueled vehicles.

As discussed throughout this Draft EIR, the Project is consistent with the City's General Plan. Further, the Project's pedestrian and bicycle improvements would reduce vehicle trips and vehicle miles traveled. These reductions in vehicle trips and vehicle miles traveled would also reduce the Project's gas and diesel fuel consumption. As such, the proposed Project would encourage the use of efficient transportation alternatives.

As demonstrated in the analysis of the discussed previously, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. Impacts would be less than significant.

Threshold 5.5-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As stated previously, the Project would be designed and operated in accordance with the with applicable State Building Code Title 24 regulations. Moreover, the Project would comply with measures designed to reduce GHG emissions (see **Section 5.7**) which would also serve to reduce energy consumption. As such, the Project would not conflict with energy efficiency plans. Impacts would be less than significant.

CUMULATIVE IMPACTS

Buildout of the Project, and related projects, would cumulatively increase the demand for energy. However, the Project would be consistent with growth expectations for the region utilized by energy providers to manage power generation and other facilities.

Furthermore, as with the Project, during construction and operation, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate energy design features, as necessary. Therefore, the Project's contribution to cumulative impacts related to wasteful, inefficient, and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.

MITIGATION MEASURES

No mitigation measures are necessary.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with existing regulations such as CALGreen and State energy standards under Title 24, would ensure that Project impacts related to energy resources would be less than significant. Further, submittal, review, and approval of Project plans through the City and relevant energy providers would ensure future energy demands would be manageable. Therefore, no significant impacts related to energy resources would be caused by the Project.

5.6 GEOLOGY AND SOILS

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to be affected by adverse geologic or soil conditions on the Project Site. More specifically, this section evaluates impacts associated with the Project that may potentially affect public health and safety or degrade the environment. Various federal, State of California (State), regional, and local programs and regulations related to anticipated geologic hazards are also discussed in this section. Information from the following studies are incorporated into this section:

- *Geologic/Soils Due Diligence Review*, Leighton and Associates, Inc., July 2021. See **Appendix H**.
- *Desert Retreat Specific Plan Cultural Resource and Paleontological Study*, Indio, Riverside County, California. Statistical Research, Inc. (SRI). December 2022. See **Appendix F**.

Prior to the preparation of this Draft EIR, an Initial Study (see **Appendix A**) was prepared using the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with geology and soils. The following Initial Study screening criteria related to geology and soils do not require additional analysis in this Draft EIR:

- Potential impacts related to the creation of substantial direct or indirect risks to life or property through project location on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), were evaluated and determined to be “Less than Significant” in the Initial Study. Expansive soils are characterized as fine-grained, such as silts and clays; the Project Site consists of alluvium soil deposits that do not contain silts and clays. Therefore, this issue is not addressed any further within this section.
- Potential impacts related to the inadequacy of on-site soils to support the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater were evaluated and determined to have “No Impact” in the Initial Study. The Project Site will be connected to the existing sewer system serving the area. Therefore, this issue is not addressed any further within this section.

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

REGULATORY SETTING

Federal

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) is a program created to implement the Clean Water Act. In November 1990, the USEPA published final regulations that establish requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, expanding regulated construction

sites to those greater than or equal to 1 acre. The regulations require that storm water and non-storm water runoff associated with construction activity, which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4), must be regulated by an NPDES permit.

The EPA has delegated management of California's NPDES program to the State Water Resources Control Board (SWRCB) and the nine regional board offices which grant permits to regulate point source discharges of industrial and municipal wastewater into the waters of the United States. The NPDES program was established in 1972 to regulate the quality of effluent discharged from easily detected point sources of pollution such as wastewater treatment plants and industrial discharges. The 1987 amendments to the CWA¹ recognized the need to address non-point-source stormwater runoff pollution and expanded the NPDES program to operators of MS4s, construction projects, and industrial facilities.

The Project Site is located within the 13-million-acre Colorado River Basin, which is governed by the Colorado River Basin Regional Water Quality Control Board (CRWQCB), also known as Region 7. The SWRCB administers the NPDES permit program regulating storm water from construction activities for projects greater than 1 acre in size. This is known as the General Permit for Storm Water Discharges Associated with Construction Activities, Order No. 2009-0009-DWQ, as amended by Order No. 2012-0006-DWQ, NPDES No. CAS000002. The main compliance requirement of NPDES permits is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to identify potential on-site pollutants and identify and implement appropriate storm water pollution prevention measures to reduce or eliminate discharge of pollutants to surface water from storm water and non-storm water discharges. Storm water best management practices (BMPs) to be implemented during construction and grading, as well as post-construction BMPs, will be outlined in the SWPPP prepared for the proposed Project.

State

Alquist-Priolo Earthquake Fault Zoning Act

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to identify hazards associated with surface fault ruptures and to prevent the construction of buildings on active faults.² The State Geologist is required to establish and map zones around the surface traces of active faults, which are then distributed to county and city agencies to be incorporated into their land use planning and construction policies. Proposed development needs to be proven through geologic investigation to not be located across active faults before a city or county can permit the implementation of projects. If an active fault is found, development for human occupancy is prohibited within a 50-foot setback from the identified fault.

1 Code of Federal Regulations. *Clean Water Act*. Section 402(p) (2008).

2 California Public Resources Code. Section 2621.5.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act is state legislation that requires delineated maps to be created by the California State Geologist to reflect where potential ground shaking, liquefaction, or earthquake-induced landslides may occur.³ Cities and counties are required to obtain approval for development on non-surface fault rupture hazard zones and mitigate seismic hazards. The purpose of the Seismic Hazards Mapping Act is to protect the public from the effects of nonsurface fault rupture earthquake hazards, inducing strong ground shaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes.

2019 California Building Standards Code, California Code of Regulations

The 2019 California Building Code (CBC) is administered by the California Building Standards Commission (CBSC). The CBC governs all development within the State of California, as amended and adopted by each local jurisdiction. These regulations include provisions for site work, demolition, and construction, which include excavation and grading, as well as provisions for foundations, retaining walls, and expansive and compressible soils. The CBC provides guidelines for building design to protect occupants from seismic hazards.

Regional and Local

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) serves as the air pollution control agency for the counties of Orange, Los Angeles, Riverside, and San Bernardino. The SCAQMD is responsible for controlling emissions from primarily stationary sources. Rules 403 and 403.1 are designed to require that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source.

SCAQMD Rule 403. This rule governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through BMPs. This may include application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

SCAQMD Rule 403.1. Rule 403.1 is a companion regulation to Rule 403 that is only applicable to fugitive dust sources in the Coachella Valley. Rule 403.1 establishes special requirements for Coachella Valley fugitive dust sources under high-wind conditions and requires AQMD approval of dust control plans for sources not subject to local government ordinances (e.g., school districts). As with Rule 403, compliance with this rule is achieved through BMPs. This supplemental rule requires the submittal and approval of a Fugitive Dust Control Plan before the start of any construction or earth-moving activities.

3 California Public Resources Code, Section 2690-2699.6.

City of Indio General Plan

Conservation Element

The purpose of the Conservation Element is to address the conservation, development, and sustainable use of Indio's natural resources, including, but not limited to, water, soils, natural gas, fossil fuels, renewable energy sources, and mineral deposits. The following goals and policies are relevant to the proposed Project:

- Goal CE-6:** **Soils.** The protection of soils from erosion by wind and water, and from the build-up of salts on agricultural lands.
- CE-6.1** **Grading.** Minimize grading of land to project specific efforts so as to limit the impact of soil erosion from wind, water, and landslides in areas of unstable slopes, and reduce negative aesthetic impacts in areas of significant landforms.
- CE-6.2** **Agricultural soil erosion.** Continue to work with agricultural property owners and operators to minimize the impacts of tilling and grading on soil erosion.
- Goal CE-8:** **Historic, Archaeological, and Paleontological Resources.** Historic, archaeological, and paleontological resources preserved for their scientific, educational, aesthetic, and cultural values.
- CE-8.1** **Site plan review.** Ensure adequate site plan review and mitigation measures are implemented for the development of sites with the potential to contain historic, archaeological, and paleontological resources.

Safety Element

The purpose of the Safety Element is to establish a policy framework for maintaining and improving the safety of Indio's residents. This Element seeks to strengthen links between quality community design and safety issues. It also identifies known seismic, flooding, and geological hazards, as well as methods to reduce the potential risk of illness, injury, death, or property damage that can occur as a result of these hazards. The following goals and policies are relevant to the proposed Project:

- Goal SE-4:** **Seismic Hazards.** A community that is minimally affected and less vulnerable to earthquakes and seismic hazards.
- SE-4.1** **Development plan review.** Require all new structures to be designed in accordance with the most recent California Building Code adopted by City Council, including the provisions regarding seismic loads, lateral forces and grading and not built across the trace of an active fault.
- SE-4.2** **Technical reports.** Require submittal of applicable geotechnical reports prepared by qualified professionals as part of the development review process.
- SE-4.3** **Seismic setbacks.** Reduce the impact of future seismic hazards by incorporating seismic setback standards for new development into the zoning code. The City may designate these setback areas as open space.

Indio Municipal Code

Title XV, Chapter 151, Section 151.010. Building and construction activities for the Project would be subject to Title 15 of the Indio Municipal Code (IMC), which governs the conditions and maintenance of all property, buildings, and structures within the City. Title 15 is based on the 2019 California Building Code (CBC), which sets minimum design and standards for construction of buildings and structures that must also meet minimum seismic strengthening standards.

Title XV, Chapter 152, Dust Control. This Chapter of the IMC establishes standards for dust control that must be provided prior to any excavation, grading, or building construction. These regulations are intended to minimize impacts as a result of grading in order to protect and preserve the public health, safety, general welfare, aesthetic value, and natural resources of the City.

Title XV, Chapter 155, Soil Erosion. This Chapter of the code requires any disturbance of soil, which might be eroded by wind, to be protected prior to or during the time of disturbance. Soils must be maintained after disturbance as well so as to prevent the soil from being eroded onto a public road or private property. The chapter states that windbreaks, walls, fences, planting and maintenance of vegetation, covering the land, applying water or other material or other effective methods or combination of methods of holding the soil in place may be used as protection against erosion.

Title XV, Chapter 162, Grading. The purpose of this Chapter it to establish an official set of standards regulating the design and construction of building sites and the development of property by grading. This Chapter also regulates the alteration of the ground surface to protect and preserve the public health, safety, general welfare, aesthetic value, and natural resources.

ENVIRONMENTAL SETTING

Existing Conditions

Regional

The Project Site is located within the Coachella Valley in Riverside County. Regionally, the Coachella Valley is a part of the Colorado Desert Geomorphic Province of California. The San Bernardino Mountains of the Transverse Ranges Geomorphic Province are to the north and the San Jacinto Mountains of the Peninsular Range are to the south.

The major structural feature of the Coachella Valley is the active San Andreas transform system that consists of several major northwest-trending right lateral strike slip faults that extend through the San Gorgonio pass along the southern foothills of the San Bernardino Mountains, and along the northeast margin of the Coachella Valley. The San Andreas Fault Zone is composed of a series of fault zones of which the south branch of the San Andreas is located in the immediate site vicinity north of the site.

The California Geologic Survey (CGS) classifies faults as either (1) active, (2) potentially active, or (3) not active. Active faults are defined as having had surface displacement within the last 11,000 years

(during the Holocene Epoch). The Project Site is located in a moderately active seismic region. Ground shaking due to earthquakes should be anticipated during the life of the proposed improvements. No active, inactive fault traces or fissuring are known to traverse the planned development portions. The closest known active fault zones are the Coachella Segment of the San Andreas Fault Zone. The Coachella Segment of the San Andreas Fault Zone is located approximately, 2.5 miles northwest of the Project Site.

The San Andreas Fault Zone is the major structural feature for the region, consisting of several northwest-trending right lateral strike slip faults that extend through the San Gorgonio pass along the southern foothills of the San Bernardino Mountains and along the northeast margin of the Coachella Valley. This Fault Zone is considered to be the longest in California, extending for over 800 miles from northern California to the Cajon Pass near San Bernardino and with depths of at least 10 miles within the Earth's surface.⁴

Project Site

The Project Site and surrounding areas slope in a southeasterly direction. Site elevations range from approximately 50 feet above mean sea level (msl) near the northwestern corner to a low point elevation of approximately 30 feet (msl) near the southeast corner of the property.

The Project Site is seismically characterized with a Site Class D soil profile. The existing soil and geologic units present within the Project Site are described below:

Soils

Undocumented Artificial Fill

The Project Site includes artificial fill materials within stockpiles located in the east central portion of the site. These stockpiles are approximately 10 to 15 feet in height and are expected to contain site-generated soils. These soils will need to be removed and re-compacted during site development.

In addition to this undocumented fill, the central portion of the Project Site contains an approximately 80-acre stockpile area approved by the City of Indio under a stockpile mass grading plan for the deposition of soil by the Coachella Valley Water District being exported from construction of the North Indio Flood Control project to the east of the Project Site.

Quaternary Alluvium

The Project Site primarily consists of quaternary-aged alluvial deposits. The alluvium is typically loose to medium dense in the upper 30 feet and dense to very dense below depths greater than 30 feet. These deposits generally consist of light brown to brownish gray, silty sand (SM) and interbedded layers of poorly

4 Sandra S. Schultz and Robert E. Wallace. "The San Andres Fault." Denver, CO: US Geological Survey, 2013. <http://pubs.usgs.gov/gip/earthq3/safaultgip.html>. Accessed October 2022.

graded sand (SP), sandy silt (ML) and sandy clay (CL). The near surface alluvium (upper 5 feet) is expected to generally possess very low expansion potential (EI<21).

Paleontological Resources

The Project Site is underlain by several Pleistocene- to Holocene-age alluvial deposits (Alluvial wash deposits [Qw], Young alluvial fan deposits [Qyf], Young alluvial valley deposits [Qya], and Young aeolian and dune deposits [Qye]).⁵ Quaternary alluvial deposits are generally assigned a high paleontological resource potential for their Pleistocene components and a low paleontological resource potential for their Holocene components. Because these deposits are undifferentiated by age within the Project Site, it can be assumed that Pleistocene-age deposits with a high paleontological resource potential could be encountered at depth, but are likely too young to produce paleontological resources at the surface.

The potential for paleontological resources located within the Project Site was analyzed by SRI through a field survey. Based on the paleontological sensitivity study, the upper 5 feet of the sediments underlying the Project Site were designated as having low paleontological resource sensitivity, and any deposits discovered at greater than 5 feet in depth below grade were assigned to have high paleontological resource sensitivity.⁶

Seismic Hazards

Earthquake Faults

Due to the nature of Southern California straddling the North American and Pacific plates, the region is located in an area where numerous strike-slip faults are present. While no Holocene-active faults are known to exist within the limits of the Project Site, there are active faults located within proximity of the Project Site that have the potential to create seismic hazards. The closest known active fault zone is the Coachella Segment of the San Andreas Fault Zone, located approximately 2.5 miles northwest of the Project Site.⁷

Other nearby active regional faults include the Indio Hills Fault Zone, Indio Hills Fault, Berdoo Canyon fault zone, Mecca Hills fault zone, and the Coachella Segment of the San Andreas Fault.⁸ In addition, there are abundant active or potentially active faults located in southern California that are capable of generating earthquakes that could affect the Indio area. These include the Mojave segment of the San Andreas fault, the many faults within the Mojave Desert located northeast of the San Bernardino

5 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See **Appendix F**.

6 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. SRI. *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See **Appendix F**.

7 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See **Appendix H**.

8 California Department of Conservation. "Fault Activity Map." <https://maps.conservation.ca.gov/cgs/fam/>. Accessed October 2022.

Mountains, and numerous faults located in the vicinity of the Los Angeles basin and coastal southern California.

Surface Fault Rupture

Primary fault rupture results in fissuring and offset of the ground surface along a rupturing fault during an earthquake. Primary ground rupture typically makes up a relatively small percentage of the total damage in an earthquake, but being too close to a rupturing fault can cause severe damage to structures, and it is difficult to safely reduce the effects of this hazard through building and foundation design. The State definition of an active fault is designed to gauge the surface rupture potential of a fault and is used to prevent development from being sited directly on an active fault. The Alquist-Priolo Earthquake Fault Zoning Act imposes development constraints within active fault zones.

Although primary seismic hazards for sites in the region include strong ground shaking and fault rupture, no known active faults have been mapped across the Project Site and the Site is not within a currently designated Alquist-Priolo Earthquake Fault Zone or County of Riverside Earthquake Fault Zone.⁹ No known active faults have been identified on the site, thus the potential for future surface fault rupture at the site is considered to be nonexistent.

Strong Seismic Ground Shaking

Ground shaking poses the greatest potential hazard to the Project Site given its location to several active faults, which have the capability of producing earthquakes. Impacts that would result from ground shaking include extensive structural damage and risk of injury or death. This hazard is common all throughout Southern California and is associated with inducing other geologic hazards such as slope failure, liquefaction, and soil settlement. The Project Site is subject to strong ground shaking due to potential fault movements along the San Andreas or other regional faults. These seismic hazards are discussed further below.

Seismically Induced Slope Failure

Slope failures generally occur within mountainous or hilly terrain where steep slopes are present. The Project Site is located within the relatively flat Coachella Valley floor and does not contain mountainous or hilly terrain that would be subject to slope failure. As such, slope instability is not considered an issue at the Site. The Project Site is not considered susceptible to seismically induced landslides.

Liquefaction and Ground Failure

Liquefaction and dynamic settlement of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils below a near-surface groundwater table are most susceptible to liquefaction. Liquefaction generally occurs within the upper

⁹ Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See Appendix H.

50 feet of the ground surface when loose, cohesionless, and water-saturated soils (fine- to medium-grained) are subjected to strong seismic ground motions of earthquakes. The seismic shaking increases the pressure of the water that fills the pores of the soil grains. Due to the absence of shallow groundwater, the potential for liquefaction-induced settlement is considered very low on the Project Site.¹⁰ However, during a strong seismic event, seismically-induced settlement can still occur within loose to moderately dense, dry, or saturated granular soils. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement.

Fissuring and Ground Subsidence

The Project Site is not located within an area where previous ground fissuring from areal subsidence or groundwater withdrawal has been documented. However, the site is within a designated “susceptible” area for subsidence.¹¹ In areas of fairly uniform thickness of alluvium, fissures are thought to be the result of tensional stress near the ground surface and generally occur near the margins of the areas of maximum subsidence. Surface runoff and erosion of the incipient fissures augment the appearance and size of the fissures.

Changes in pumping regimes can affect localized groundwater depths, related cones of depression, and associated subsidence such that the prediction of where fissures might occur in the future is difficult. In the event of future nearby aggressive groundwater pumping and utilization, the occurrence of deep subsidence cannot be ruled out, although, subsidence would most likely occur on an areal basis with the effects to individual structures anticipated to be minimal.

Dry sands tend to settle and densify when subjected to strong earthquake shaking. The amount of subsidence is dependent on relative density of the soil, ground motion, and earthquake duration. Due to relatively deep groundwater conditions of between 90 and 140 feet below ground surface (bgs),¹² it is anticipated that the deeper sediments underlying the site have been present for multiple San Andreas earthquakes and thus have experienced most dry settlement. Reduction of the groundwater table will expose soils that will be susceptible to further seismic induced settlement. Shallower soils in the upper 50 feet are much younger and may exhibit significant settlement in the event of future local earthquakes.

Seismically Induced Settlement

Under certain conditions, strong ground shaking can cause the densification of soils, resulting in local or regional settlement of the ground surface. During strong shaking, soil grains become more tightly packed due to the collapse of voids and pore spaces, resulting in a reduction of the thickness of the soil column. This type of ground failure typically occurs in loose, granular, cohesionless soils and can occur in either wet or dry conditions. Under the added weight of fill embankments or buildings, these soils tend to

10 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 6. See Appendix H.

11 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See Appendix H.

12 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See Appendix H.

settle, causing distress to improvements. Damage to structures typically occurs as a result of local differential settlements, although regional settlement can damage pipelines by changing the flow gradient on water and sewer lines, for example.

Other Geologic Hazards

Other geologic hazards that have potential to pose safety impacts in reference to the construction and operational activities of the Project are described below.

Expansive/Collapsible Soils

Expansive soils are characterized as fine-grained, such as silts and clays, soils with variable amounts of expansive clay minerals that can change in volume due to changes in water content. Collapsible soils typically occur in recently deposited soils that tend to be drier and more granular. Limited laboratory testing indicated that onsite soils possess a very low expansion potential.

Erosion

Since the Project Site contains cohesionless alluvium materials, the potential for surficial erosion exists. The low levels of rain in the Coachella Valley result in low vegetative growth to anchor soils. When the Coachella Valley experiences storms, they tend to occur in high frequency, thus highly accelerating soil erosion and potentially causing floods. However, the Project Site is located on relatively flat land with generally consistent elevations.

Seiche and Tsunami

Due to the lack of nearby open bodies of water, the possibility of the affects due to seiches or tsunami is considered low.

Groundwater and Surface Water

Groundwater and surface water are not found to be present on the Project Site recently or historically. There is one well within the vicinity of the Project, located approximately 1 mile southwest of the Site. Groundwater depths may be between 90 and 140 feet bgs.¹³ Data is typically from water supply wells which tend to tap deeper aquifers and therefore may not reflect the depth to the shallowest water table.

Fluctuations of the groundwater level, localized zones of perched water, and soil moisture content should be anticipated during and following the rainy season. Irrigation of landscaped areas can also cause a fluctuation of local groundwater levels.

13 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See Appendix H.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of impacts to geological resources (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact if it would:

- Threshold 5.6-1:** Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?
- Threshold 5.6-2:** Result in substantial soil erosion or the loss of topsoil?
- Threshold 5.6-3:** 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 5.6-4:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Methodology

The *Geotechnical/Soils Due Diligence Review* (see **Appendix H**) provides preliminary geotechnical recommendations for site development based on the updated site plan, field exploration, and laboratory testing results. The analysis of potential impacts to geologic and soil hazards that would be associated with the Project included the following elements:

- Review of published data within the Project area;
- A site geologic reconnaissance and visual observations of surface conditions;
- Review of selected geological literature and aerial photographs;
- Excavation and laboratory testing of soil samples;
- Geotechnical engineering analyses.

Project Impacts

Would the project:

- Threshold 5.6-1:** Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence

of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The State of California, under the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act, classifies faults as active, potentially active, and not active. The Project Site is located in a region that consists of numerous active fault zones, such as the Indio Hills Fault, Berdoo Canyon fault zone, Mecca Hills fault zone, and the San Andreas Fault.¹⁴ The Project Site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone or County of Riverside Fault Zone and no active fault traces or fissures are known within the Project vicinity or were observed during the on-site field investigation. As such, impacts due to the rupture of a known earthquake fault would be less than significant.

ii. Strong seismic ground shaking?

The intensity of ground shaking at a given location depends on several factors, but primarily on the earthquake magnitude, the distance from the hypocenter to the site of interest, and response characteristics of earth units underlying the site of interest. Similar to most of Southern California, the Project Site is in a seismically active area and is subject to some level of ground shaking as a result of movement along the major active (and potentially active) fault zones that characterize this region. The Project Site would most likely experience background shaking or potentially moderate to occasionally high ground shaking from faults in the region.

While no active faults are known to transect, or project onto, the Project Site, the nearest faults in proximity to the Project Site that could generate seismic activity that would affect the site are the Indio Hills and San Andreas (San Andreas Coachella Segment) Faults. The Coachella Segment of the San Andreas Fault Zone is located approximately 2.5 miles northwest of the Site. The Indio Hills Fault Zone is approximately three miles east of the Project Site. Intensity of ground shaking at a given location depends primarily upon earthquake magnitude, site distance from the source, and site response (soil type) characteristics. The Project's proximity to these two faults results in a reasonable likelihood that potentially significant seismic activity would be experienced at the Project Site. Based on the proposed remedial grading recommendations in areas of planned development, the potential total settlement resulting from ground shaking is expected to be less than 4 inches in the upper 50 feet of soils.¹⁵ The potential for seismic-induced settlement to occur is considered moderate.

Based on the Geotechnical Study prepared for the Project, the Project is considered feasible for development from a geotechnical perspective. Mitigation Measure (MM) GEO-1, MM GEO-2, and MM GEO-3, and MM GEO-13 would reduce the potential for seismic settlement in areas of planned development and include the removal of unconsolidated alluvium, artificial fill, slopewash, colluvium, weathered terrace deposits, severely weathered bedrock, and landslide materials prior to areas to receive fill. MM GEO-10 and MM GEO-12 would also reduce moisture vapor transmission on various components of the

14 California Department of Conservation. "Fault Activity Map." <https://maps.conservation.ca.gov/cgs/fam/>. Accessed October 2022.

15 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 6. See Appendix H.

structure and corrosion of foundations. Additional mitigation measures to reduce the potential for seismic settlement in areas of planned development may also include **MM GEO-4** through **MM GEO-7**. These **MMs** would include backfill of utility trenches, the import of soils with uncontaminated and low corrosive impact, drainage directed away from slopes and structures, and a balance area to be placed on-site for the adjustment of import soil quantities to accommodate variation of compaction needs. These mitigation measures would also be applied to the alternative substation site, which is located on the northwest corner of Burr Street and Avenue 40. Buildings and structures developed on the Project Site, as well as the potential alternative substation site, would also be required to adhere to the minimum standards and seismic safety requirements outlined in the 2019 California Building Code, as adopted, and amended by the City and codified in Title XV: Land Usage, in the IMC. These requirements would ensure that the Project would implement the recommendations contained within the Geotechnical Study. Therefore, implementation of **MMs GEO-1** through **MM GEO-7**, **MM GEO-10**, **MM GEO-12**, and **MM GEO-13** and building requirements would ensure that the Project would be designed in accordance with City and professional standards to avoid hazards related to seismic ground shaking. Impacts would be less than significant with mitigation.

iii. Seismic-related ground failure, including liquefaction?

Liquefaction, most often caused by earthquakes, describes a phenomenon where a soil's strength and stiffness are substantially reduced. Liquefaction causes the soil's composition to liquefy, which destabilizes buildings that are supported by the ground. Based on the depth of groundwater in the soils, possibly between 90 to 140 bgs according to the nearest well, liquefaction is not likely to occur.¹⁶ The Project Site is also not mapped within an area of liquefaction according to the California Department of Conservation.¹⁷ This is due to the nature of the soil composition of the Project Site. However, during a strong seismic event, seismically-induced settlement can still occur within loose to moderately dense, dry, or saturated granular soils. The proposed remedial grading recommendations within the Geotechnical Study, state that the potential total settlement resulting from ground shaking is expected to be less than 4 inches in the upper 50 feet of soils. It is anticipated that the deeper sediments underlying the Site have been present for multiple San Andreas earthquakes and thus have experienced most dry settlement. However, **MM GEO-8** and **MM GEO-9** would further reduce the potential for liquefaction and associated liquefaction-induced ground failures and may include recompaction of potentially liquefiable soils.

Additionally, implementation of the 2019 CBC requirements and the recommendations contained in the approved Geotechnical Study during design and construction, would be ensured through implementation of the required geotechnical report and final grading, drainage, and erosion control plans. The potential for adverse impacts to the proposed development from liquefaction and other secondary seismic effects is considered to be low provided that **MM GEO-8** and **MM GEO-9** are incorporated into the future grading

16 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 6. See Appendix H.

17 California Department of Conservation. "Earthquake Zones of Required Investigation." <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed October 2022.

plan and implemented during construction. Therefore, impacts are considered to be less than significant with mitigation.

iv. Landslides?

There are no natural or manmade hillsides within the Project Site. The Project Site is relatively flat with gentle northeast to southwest sloping; thus slope instability is not considered to be an issue.¹⁸ As such, the Site is not considered susceptible to seismically induced landslides. In addition, the Project would not result in any post-grading conditions that would have a potential for seismic slope instability and land sliding; therefore, impacts would be less than significant.

Threshold 5.6-2: Would the project result in substantial soil erosion or the loss of topsoil?

Construction

The Project Site currently consists of vacant land historically used for agricultural purposes. Stockpiles of soil are also located in the east-central and central portions of the Site. The Project Site would be graded prior to construction of the Project and therefore, the soils would be exposed and could be subject to erosion. In compliance with SCAQMD Rule 403 and Rule 403.1, exposed soils would need to be covered with vegetation as soon as possible and/or watered in order to reduce fugitive dust. Construction vehicles on the Project Site would also need to maintain low speeds as another measure to reduce airborne fugitive dust particles.

Quaternary-aged alluvial deposits were encountered to the maximum depth explored in conjunction with the Project Site's geotechnical investigation. The artificial fill materials are composed predominately by site generated soils containing alluvial deposits. The alluvium materials are composed of loose to medium dense in the upper 30 feet and dense to very dense below depths greater than 30 feet. The near surface alluvium (upper 5 feet) is expected to generally possess very low expansion potential.

As described in **Section 5.8: Hydrology and Water Quality**, the General Permit for Storm Water Discharges Associated with Construction Activities requires that the Applicant develop and implement a SWPPP, which includes BMPs that would be employed to prevent erosion of on-site soils, as well as discharge of other construction related pollutants. A monitoring program is required as part of the SWPPP to ensure that BMPs are implemented appropriately and are effective at controlling discharges of pollutants that are related to stormwater, including erosion of on-site soils. IMC Title XV, Chapter 162, Sections 162.600 describes regulation standards for sediment and erosion control during grading activities. Additionally, **MM GEO-6** and **MM GEO-7** would reduce the potential for flooding and erosion. Therefore, with the implementation **MM GEO-6** and **MM GEO-7**, the required SWPPP, and adherence to the IMC for sediment and erosion control, soil erosion impacts would be less than significant.

18 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 7. See **Appendix H**.

Operation

The increased intensity of use on the Project Site would potentially impact the surrounding undeveloped adjacent landscape and influence acceleration of erosion from stormwater runoff. In addition, wind erosion from the surrounding undeveloped properties could have potential impacts on the buildings, structures, and individuals within the Project Site. This is due to the nature of the regional landscape, wind patterns, and soil composition. These factors influence the area to be more susceptible to wind erosion impacts. Thus, the Project Site is considered to be located in an area of minimal erosion hazard.

Unprotected pads and slope faces will be susceptible to erosion. This risk can be reduced by planting the slopes as soon as possible after grading, and by maintaining proper erosion control measures. **MM GEO-7** would require all fill and cut slopes to be designed and constructed at 2:1 (horizontal: vertical) with benches at maximum 30-foot intervals; berms provided at the top of fill slopes to reduce runoff; and drainage would be directed such that surface runoff on the slope face is minimized. These slopes would be considered stable for the soil within the Project Site. Further, **MM GEO-11** would require retained earth for design of cantilever walls for very low to low expansive soils that are free draining. Implementation of these recommendations would reduce impacts to less than significant.

Threshold 5.6-3: **Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

The relatively flat topography of the Project Site and surrounding off-site areas precludes both stability problems and the potential for lurching, which is earth movement at right angles to a cliff or steep slope during ground shaking.

As previously discussed, the potential for hazards such as landslides and liquefaction is considered low. Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. However, if lateral containment is present for those zones, then no significant risk of lateral spreading would be present. Since the liquefaction potential at the Project Site is low, earthquake-induced lateral spreading is not considered to be a significant seismic hazard, nor would it result in off-site impacts.

To minimize significant settlements, it is recommended that the unsuitable soils in areas to receive fills be removed and replaced with compacted fill.¹⁹ Ground surface subsidence generally results from the extraction of fluids or gas from the subsurface that can result in a gradual lowering of the ground level. According to the geotechnical study, groundwater was not found to be present on the Project Site and groundwater depths are estimated to be between 90 and 140 feet bgs.²⁰ With the lack of presence of

19 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 10. See **Appendix H**.

20 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 5. See **Appendix H**.

shallow groundwater, the potential for ground collapse and other adverse effects due to subsidence to occur on the Project Site and off-site areas is considered low. Thus, the potential for seismically induced ground subsidence is considered to be moderate at the Site and could be on the order of approximately 1.8 inches.²¹

Seismically induced settlement is considered to be potentially significant. **MM GEO-1** through **MM GEO-3** and **MM GEO-13** would reduce impacts to less than significant. **MM GEO-1** would include the removal of heavy vegetation, boulders, roots, and debris from the Project Site. **MM GEO-2** the excavation/recompaction of uncertified fill, ground settlement would be reduced to levels that can be accommodated by conventional foundation designs. **MM GEO-3** states that proposed foundations and slabs would be designed in accordance with the structural consultants' design, the minimum geotechnical recommendations presented in the Geotechnical Study, and the 2019 CBC. Additionally, based on the remedial grading recommendations in areas of planned development, the Project Site possess very low expansion and collapsible potential. Therefore, the risk of ground settlement would be less than significant, with mitigation.

Even though the Project Site's potential to experience a landslide, lateral spreading, subsidence, liquefaction, or collapse is considered low, the Project would ensure that all development would comply with the CBC, prepare a detailed geotechnical and soils investigation approved by the City, and incorporate the recommendations presented in the draft and final soils engineering reports prepared for the Project Site. Therefore, impacts related to exposure to hazards including landslides, lateral spreading, subsidence, liquefaction, and collapse would be less than significant.

Threshold 5.6-4: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources include the fossilized remains or traces of animals and plants from a previous geologic period. As stated before, the Project site is underlain by several Pleistocene- to Holocene-age alluvial deposits.²² Quaternary alluvial deposits are generally assigned a high paleontological resource potential for their Pleistocene components and a low paleontological resource potential for their Holocene components. Records from the Western Science Center corroborate the assignment of a high paleontological resource potential to these alluvial deposits (at least at depth), as documented by the presence of significant fossil finds in Quaternary alluvial deposits in close proximity to the Project Site. Therefore, it can be assumed that the upper 5 feet of the sediments underlying the Project Site should be assigned a low paleontological resource sensitivity and any deposits discovered at greater than 5 feet of depth below grade be assigned a high paleontological resource sensitivity. Therefore, impacts would potentially be significant to paleontological resources during construction of the Project. Therefore, **MM GEO-14** would require all sediment greater than 5 feet below grade be monitored by a qualified

21 Leighton and Associates. *Geotechnical/Soils Due Diligence Review*. Page 11. See Appendix H.

22 City of Indio. *City of Indio General Plan*. "Conservation Element." Page 8-12.
<https://www.indio.org/civicax/filebank/blobdload.aspx?t=46234.68&BlobID=29112>. Accessed October 2022.

paleontological monitor. Implementation of these measures would mitigate impacts to less than significant.

CUMULATIVE IMPACTS

Geology and soil hazards are related to conditions and circumstances that are considered site-specific. Therefore, the geographic context for the analysis of potential cumulative geology and soils impacts consists of individual development sites. Although cumulative development in the City and broader Coachella Valley may include numerous projects with geologic and soil impacts, these impacts would affect each individual project, rather than resulting in an additive cumulative effect. Mitigation measures would be taken on a project-by-project basis and be specific to each site. None of the related projects are located on an adjacent property or nearby, and all projects have to be designed in accordance with the appropriate jurisdiction's building and grading standards to reduce seismic-related risks to less than significant levels. Thus, cumulative development would result in a less than significant cumulative impact related to geology and soil hazards.

MITIGATION MEASURES

The following mitigation measures would reduce geology and soil impacts to less than significant:

MM GEO-1: Site Preparation and Remedial Grading. Prior to grading, the proposed structural improvement areas (i.e., all structural fill areas, pavement areas, buildings, etc.) of the site should be cleared of surface and subsurface obstructions, heavy vegetation and boulders. Roots and debris should be disposed of offsite. Septic Tanks or seepage pits, if encountered, should be abandoned in accordance with the County of Riverside Department of Health Services guidelines.

The near surface soils/alluvium (including artificial fill/stockpiles) are potentially compressible in their present state and may settle under the surcharge of fills or foundation loading. As such, these materials should be removed (over-excavated) and re-compacted in all settlement-sensitive areas. We recommend that the upper 5 feet of alluvium or 3 feet below bottom of footings, whichever deeper, should be removed/over-excavated and recompacted prior to foundation construction or placement of any additional fill. The removal limit should be established by a 1:1 (horizontal: vertical) projection from the edge of fill soils supporting settlement-sensitive structures downward and outward to competent material identified by the geotechnical consultant. Removal will also include benching into competent material as the fills rise. Areas adjacent to existing structures or property limits may require special considerations and monitoring. Steeper temporary slopes in these areas may be considered.

MM GEO-2: Structural Fills. The onsite soils are generally suitable for re-use as compacted fill provided they are free of debris and organic matter. Areas to receive structural fill and/or other surface improvements should be scarified to a minimum depth of 8 inches, conditioned to at least optimum moisture content, and recompacted. Fill soils should be

placed at a minimum of 90 percent relative compaction (based on ASTM D1557) and near or above optimum moisture content. Placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of the geotechnical consultant. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in thickness.

Fill slope keyways will be necessary at the toe of all fill slopes and cut slope replacement fills. Keyway schematics, including dimensions and subdrain recommendations, are provided in Appendix D. All keyways should be excavated into dense bedrock or dense alluvium as determined by the geotechnical engineer. The cut portions of all slope and keyway excavations should be geologically mapped and approved by a geologist prior to fill placement.

Fills placed on slopes steeper than 5:1 (horizontal: vertical) should be benched into dense soils (see Appendix D for benching detail). Benching should be of sufficient depth to remove all loose material. A minimum bench height of 2 feet into approved material should be maintained at all times.

MM GEO-3: Shrinkage and Subsidence. The volume change of excavated onsite materials upon compaction is expected to vary with materials, volume of roots and deleterious materials, density, insitu moisture content, location, and compaction effort. The in place and compacted densities of soil materials vary and accurate overall determination of shrinkage and bulking cannot be made. Therefore, we recommend site grading include, if possible, a balance area or ability to adjust import quantities to accommodate some variation. Based on our experience with similar materials, we anticipate 10 to 15 percent shrinkage in the upper 5 feet of dune sand/alluvium.

Subsidence due solely to scarification, moisture conditioning and recompaction of the exposed bottom of overexcavation, is expected to be on the order of 0.15 foot. This should be added to the above shrinkage value for the recompacted fill zone, to calculate overall subsidence.

MM GEO-4: Import Soils. Import soils and/or borrow sites, if needed, should be evaluated by the geotechnical consultant prior to import. Import soils should be uncontaminated, granular in nature, free of organic material (loss on ignition less-than 2 percent), have a very low expansion potential (with an Expansion Index less than 21) and have a low corrosion impact to the proposed improvements.

MM GEO-5: Utility Trenches. Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the Standard Specifications for Public Works Construction, (“Greenbook”), 2018 Edition (or most recent). Fill material above the pipe zone should be placed in lifts not exceeding 8 inches in uncompacted thickness and should be compacted to at least 90 percent relative compaction (ASTM D 1557) by mechanical means only. Site soils may generally be suitable as trench backfill provided

these soils are screened of rocks over 1½ inches in diameter and organic matter. If imported sand is used as backfill, the upper 3 feet in building and pavement areas should be compacted to 95 percent. The upper 6 inches of backfill in all pavement areas should be compacted to at least 95 percent relative compaction.

Where granular backfill is used in utility trenches adjacent moisture sensitive subgrades and foundation soils, we recommend that a cut-off “plug” of impermeable material be placed in these trenches at the perimeter of buildings, and at pavement edges adjacent to irrigated landscaped areas. A “plug” can consist of a 5-foot-long section of clayey soils with more than 35-percent passing the No. 200 sieve, or a Controlled Low Strength Material (CLSM) consisting of one sack of Portland-cement plus one sack of bentonite per cubic-yard of sand. CLSM should generally conform to Section 201-6 of the Standard Specifications for Public Works Construction, (“Greenbook”), 2018 Edition. This is intended to reduce the likelihood of water permeating trenches from landscaped areas, then seeping along permeable trench backfill into the building and pavement subgrades, resulting in wetting of moisture sensitive subgrade earth materials under buildings and pavements.

Excavation of utility trenches should be performed in accordance with the project plans, specifications, and the California Construction Safety Orders (current Edition). The contractor should be responsible for providing a “competent person” as defined in Article 6 of the California Construction Safety Orders. Contractors should be advised that sandy soils (such as fills generated from the onsite alluvium) could make excavations particularly unsafe if all safety precautions are not properly implemented. In addition, excavations at or near the toe of slopes and/or parallel to slopes may be highly unstable due to the increased driving force and load on the trench wall. Spoil piles from the excavation(s) and construction equipment should be kept away from the sides of the trenches. Leighton does not consult in the area of safety engineering.

MM GEO-6: Drainage. All drainage should be directed away from structures, slopes, and pavements by means of approved permanent/temporary drainage devices. Adequate storm drainage of any proposed pad should be provided to avoid wetting of foundation soils. Irrigation adjacent to buildings should be avoided when possible. As an option, sealed-bottom planter boxes and/or drought resistant vegetation should be used within 5-feet of buildings.

MM GEO-7: Slope Design and Construction. Based on our understanding and planning purposes, all fill and cut slopes will be designed and constructed at 2:1 (horizontal: vertical) with benches at maximum 30-foot intervals. These slopes are considered grossly stable for static and pseudo static conditions. For planning purposes, cut slopes exceeding 5 feet in height should be constructed as replacement fill slopes due to the highly erosive nature of site soils. Future grading plans should be subject to further review and evaluation.

The outer portion of fill slopes should be either overbuilt by 2 feet (minimum) and trimmed back to the finished slope configuration or compacted in vertical increments of 5 feet (maximum) by a weighted sheepsfoot roller as the fill is placed. The slope face should then be track-walked by dozers of appropriate weight to achieve the final slope configuration and compaction to the slope face.

Slope faces are inherently subject to erosion, particularly if exposed to wind, rainfall, and irrigation. Landscaping and slope maintenance should be conducted as soon as possible in order to increase long-term surficial stability. Berms should be provided at the top of fill slopes. Drainage should be directed such that surface runoff on the slope face is minimized.

MM GEO-8: Bearing and Lateral Pressures. Based on our analysis, the proposed residential/ and retail/commercial structures may be founded on conventional foundation systems based on the design parameters provided below. The proposed foundations and slabs should be designed in accordance with the structural consultants' design, the minimum geotechnical recommendations presented herein, and the 2019 CBC. In utilizing the minimum geotechnical foundation recommendations, the structural consultant should design the foundation system to acceptable deflection criteria as determined by the architect. Foundation footings may be designed with the following geotechnical design parameters:

- **Bearing Capacity:** A net allowable bearing capacity of 2,000 pounds per square foot (psf), or a modulus of subgrade reaction of 150 pci may be used for design of footings founded entirely into compacted fill. The footings should extend a minimum of 12 inches below lowest adjacent grade. A minimum base width of 18 inches for continuous footings and a minimum bearing area of 3 square feet (1.75 ft by 1.75 ft) for pad foundations should be used. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g., seismic and wind).
- **Passive Pressures:** The passive earth pressure may be computed as an equivalent fluid having a density of 300 psf per foot of depth, to a maximum earth pressure of 3,000 pounds per square foot. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

MM GEO-9: Settlement. The project civil engineer, structural engineer, and architect should consider the potential effects of both static settlement and dynamic settlement presented below.

- **Static Settlement:** Most of the static settlement of onsite soils is expected to be immediate or within 30 days following fill placement. A differential static settlement of 0.5 inch over a 30-foot span may be considered for design purposes. Additional

settlement will also occur in the future if sites grades are raised or due to specific or large footing/foundation loads.

- **Dynamic Settlement:** Based on our analysis, we estimate that total dynamic settlement is expected to be less than 5.0 inch. Due to relatively uniform alluvium, this settlement is expected to be **global** and differential settlement is expected to be minimal or less than 0.25 inches over a 40foot horizontal span.

MM GEO-10: Vapor Retarder. It has been a standard of care to install a moisture retarder underneath all slabs where moisture condensation is undesirable. Moisture vapor retarders may retard but not totally eliminate moisture vapor movement from the underlying soils up through the slabs. Moisture vapor transmission may be additionally reduced by use of concrete additives. A qualified person/firm shall be engaged and consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction and make to avoid moisture vapor transmission on various components of the structure as deemed appropriate. The slab subgrade soils should be well wetted prior to placing concrete.

MM GEO-11: Retaining Walls. Unrestrained (yielding) cantilever walls should be designed for the active equivalent-fluid weight value provided above for very low to low expansive soils that are free draining. In the design of walls restrained from movement at the top (non-yielding) such as basement or elevator pit/utility vaults, the at-rest equivalent fluid weight value should be used. Total depth of retained earth for design of cantilever walls should be measured as the vertical distance below the ground surface measured at the wall face for stem design, or measured at the heel of the footing for overturning and sliding calculations. Should a sloping backfill other than a 2:1 (horizontal: vertical) be constructed above the wall (or a backfill is loaded by an adjacent surcharge load), the equivalent fluid weight values provided above should be re-evaluated on an individual case basis by us. Non-standard wall designs should also be reviewed by us prior to construction to check that the proper soil parameters have been incorporated into the wall design.

MM GEO-12: Geochemical Characteristics. Additional corrosion testing should be performed on representative finish grade soils at the completion of rough grading. Concrete foundations in contact with site soils should be designed in accordance with 2019 CBC. A qualified corrosion engineer should be consulted to review the results of laboratory tests and coordinate additional testing if corrosion sensitive materials are to be used.

MM GEO-13: Preliminary Pavement Design. The subgrade soils in the upper 6 inches should be properly compacted to at least 95 percent relative compaction (ASTM D1557) and should be moisture conditioned to near optimum and kept in this condition until the pavement section is constructed. Proof-rolling subgrade to identify localized areas of yielding subgrade (if any) should be performed prior to placement of aggregate base and under the observation of the geotechnical consultant.

Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density as determined by ASTM D1557. Base rock should conform to the “Standard Specifications for Public Works Construction” (green book) current edition or Caltrans Class 2 aggregate base having a minimum R-value of 78. Asphaltic concrete should be placed on compacted aggregate base and compacted to a minimum 95 percent relative compaction.

MM GEO-14: Paleontological Monitoring. A qualified paleontologist shall be retained prior to earthmoving activities associated with sediment greater than 5 feet below grade within the Project Site, in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan. The plan shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project Site. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the Project paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the City. The plan shall also include a description of the professional qualifications required of key staff, communication protocols to be followed during construction, fossil-recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens. Furthermore, a paleontological monitor should be on-site at all times during the original cutting of previously undisturbed deposits of high paleontological resource potential to inspect exposures for contained fossils. The paleontological monitor will work under the direction of a qualified professional paleontologist. If paleontological resources are discovered during construction, the monitor will have the authority to temporarily divert or direct ground-disturbing activities in the immediate vicinity around the find until they are assessed for scientific significance and recovered (i.e., collected).

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of existing regulations and standards identified above, along with **MM GEO-1** through **MM GEO-14**, potential impacts associated with geology and soils would be reduced to a level that is less than significant. Therefore, all potential impacts related to geology and soils would be less than significant.

5.7 GREENHOUSE GAS EMISSIONS

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan (Desert Retreat or Project) to generate greenhouse gas (GHG) emissions that may have a significant effect on the environment or to conflict with plans and policies adopted for the purpose of reducing greenhouse gas emissions. Various federal, State, regional, and local programs and regulations related to greenhouse gas emissions are discussed in this Section.

A quantified estimate of the GHG emissions that could result from the development of the land uses that would be allowed by the Project is provided. Modeling datasheets for global climate change emissions are included as part of the air quality modeling in **Appendix D: Greenhouse Gas Data** of this EIR.

REGULATORY SETTING

Federal

Federal Clean Air Act

The US Supreme Court ruled in *Massachusetts v. Environmental Protection Agency*¹ that carbon dioxide (CO₂) and other GHGs are pollutants under the federal Clean Air Act (CAA), which the US Environmental Protection Agency (USEPA) must regulate if it determines they pose an endangerment to public health or welfare.² The Court did not mandate that the USEPA enact regulations to reduce GHG emissions. Instead, the Court found that the USEPA could avoid taking action if it found that GHGs do not contribute to climate change or if it offered a “reasonable explanation” for not determining that GHGs contribute to climate change.

On April 17, 2009, the USEPA issued a proposed finding that GHGs contribute to air pollution that may endanger public health or welfare. On April 24, 2009, the proposed rule was published in the Federal Register under Docket ID No. EPA-HQ-OAR-2009-0171.³ The USEPA stated that high atmospheric levels of GHGs “are the unambiguous result of human emissions and are very likely the cause of the observed increase in average temperatures and other climatic changes.” The USEPA further found that “atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act.” The final rule was effective on January 14, 2010.⁴ While these

1 *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007).

2 Perry W. Payne and Sara Rosenbaum. “Massachusetts et al. v Environmental Protection Agency: Implications for Public Health Policy and Practice.” *Public Health Reports* 122 No. 6 (2007): 817-819. <https://doi.org/10.1177/003335490712200614>. Accessed November 2022.

3 Federal Register. “Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act” (December 15, 2009). <https://www.federalregister.gov/documents/2009/12/15/E9-29537/endangerment-and-cause-or-contribute-findings-for-greenhouse-gases-under-section-202a-of-the-clean>. Accessed November 2022.

4 United States Environmental Protection Agency (USEPA). “Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act.” <https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a>. Accessed November 2022.

findings alone did not impose any requirements on industry or other entities, this action was a prerequisite to regulatory actions by the USEPA, including, but not limited to, GHG emissions standards for light-duty vehicles.

In response, the USEPA promulgated a regulation to require reporting of all GHG emissions from all sectors of the economy. The final rule applies to fossil fuel suppliers and industrial gas suppliers, direct greenhouse gas emitters and manufacturers of heavy-duty and off-road vehicles and engines. The rule does not require control of greenhouse gases; rather, it requires only that sources above certain threshold levels monitor and report emissions.⁵

Corporate Average Fuel Economy (CAFE) Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the George W. Bush administration issued Executive Order 13432 in 2007, directing the USEPA, the US Department of Transportation (USDOT), and the US Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, nonroad vehicles, and nonroad engines by 2008.⁶ In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011; in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012-2016.⁷

In 2010, President Obama issued a memorandum directing the USEPA, USDOT, USDOE, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017-2025 light-duty vehicles.⁸ The proposed standards projected to achieve 163 grams/mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017-2021. On May 2, 2022, NHTSA also finalized fuel economy standards for passenger cars and light trucks for model years 2024-2025 that increase at a rate of 8 percent per year, and increase at a rate of 10 percent per year for model year 2026 vehicles. NHTSA currently projects that the revised standards would require an industry

5 Federal Register. "Mandatory Reporting of Greenhouse Gases." October 30, 2009. <https://www.gpo.gov/fdsys/pkg/FR-2009-10-30/pdf/E9-23315.pdf>. Accessed November 2022.

6 US Government Publishing Office, Administration of George W. Bush. *Executive Order 13432—Cooperation Among Agencies in Protecting the Environment With Respect to Greenhouse Gas Emissions From Motor Vehicles, Nonroad Vehicles, and Nonroad Engines*, 631. May 14, 2007. <https://www.gpo.gov/fdsys/pkg/WCPD-2007-05-21/pdf/WCPD-2007-05-21-Pg631.pdf>. Accessed November 2022.

7 USEPA. "Regulations for Greenhouse Gas Emissions from Commercial Trucks & Buses." December 27, 2017. <https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-commercial-trucks>. Accessed November 2022.

8 USEPA. "Presidential Announcements and Letters of Support related to Greenhouse Gas Emissions." August 28, 2017. <https://www.epa.gov/regulations-emissions-vehicles-and-engines/presidential-announcements-and-letters-support-related>. Accessed November 2022.

fleet-wide average of roughly 49 mpg in model year 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings.⁹

In addition to the regulations applicable to cars and light-duty trucks described above, in 2016, the USEPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. If implemented, the Phase 2 standards would be expected to lower CO₂ emissions by approximately 1.1 billion metric tons (MT), save vehicle owners fuels costs of about \$170 billion.¹⁰ But as discussed above, the USEPA and NHTSA have proposed to roll back GHG and fuel economy for cars and light-duty trucks, which suggest a similar rollback of Phase 2 standards for medium and heavy-duty vehicles may be pursued.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:¹¹

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of renewable fuel in 2022, with at least 16 billion gallons from cellulosic biofuels and a cap of 15 billion gallons for corn-starch ethanol;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks; and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks, and create a separate fuel economy standard for trucks.

9 Federal Register. "Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks." May 2, 2022. <https://www.govinfo.gov/content/pkg/FR-2022-05-02/pdf/2022-07200.pdf>. Accessed November 2022.

10 USEPA. *USEPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond*. August 2016. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockkey=P100P7NL.txt>. Accessed November 2022.

11 USEPA. "Summary of the Energy Independence and Security Act." <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>. Accessed November 2022.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”¹²

State

Executive Orders

Executive Order S-3-05

Executive Order S-3-05, signed by Governor Arnold Schwarzenegger and issued in June 2005, proclaimed that California is vulnerable to the impacts of climate change. It declared that increased temperatures could reduce the Sierra snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established the following total GHG emission targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

However, in adopting the California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32 (Pavley), discussed below, the Legislature did not adopt the 2050 horizon-year goal from Executive Order No. S-3-05 and, in the 2006 legislative session, rejected legislation to enact the Executive Order’s 2050 goal.

Executive Order S-01-07

Executive Order S-1-07, the Low Carbon Fuel Standard (issued on January 18, 2007), requires a reduction of at least 10 percent in the carbon intensity of California’s transportation fuels by 2020.¹³ Regulatory proceedings and implementation of the Low Carbon Fuel Standard have been directed to the California Air Resources Board (CARB). The Low Carbon Fuel Standard has been identified by CARB as a discrete early action item in the adopted Climate Change Scoping Plan (discussed below). CARB expects the Low Carbon Fuel Standard to achieve the minimum 10 percent reduction goal; however, many of the early action items outlined in the Climate Change Scoping Plan work in tandem with one another. Other specific emission reduction measures included are the Million Solar Roofs Program¹⁴ and Assembly Bill (AB) 1493 (Pavley I), Vehicle Emissions: Greenhouse Gases, which establishes motor vehicle GHG emissions

12 A green job, as defined by the United States Department of Labor, is a job in business that produce goods or provide services that benefit the environment or conserve natural resources.

13 Office of the Governor. *Executive Order S-01-07*. January 18, 2007. <http://climateactionnetwork.ca/wp-content/uploads/2011/06/eos0107.pdf>. Accessed November 2022.

14 US Department of Energy. “Laying the Foundation for Solar America: The Million Solar Roofs Initiative.” October 2016. <https://www.nrel.gov/docs/fy07osti/40483.pdf>. Accessed November 2022.

standards.¹⁵ To avoid the potential for double-counting emission reductions associated with AB 1493, the Climate Change Scoping Plan has modified the aggregate reduction expected from the Low Carbon Fuel Standard to 9.1 percent. In accordance with the Climate Change Scoping Plan, this analysis incorporates the modified reduction potential for the Low Carbon Fuel Standard. CARB released a draft version of the Low Carbon Fuel Standard in October 2008. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the Low Carbon Fuel Standard became effective on the same day.

Executive Order B-30-15

Executive Order B-30-15, signed by Governor Edmund Gerald “Jerry” Brown and issued in April 29, 2015, established a new Statewide policy goal to reduce GHG emissions to 40 percent below their 1990 levels by 2030. Reducing GHG emissions by 40 percent below 1990 levels in 2030, and by 80 percent below 1990 levels by 2050 (consistent with Executive Order S-3-05), aligns with scientifically established levels needed to limit global warming to less than 2 degrees Celsius.¹⁶

Executive Order B-55-18

Executive Order B-55-18, issued by Governor Brown in September 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. Based on this executive order, CARB would work with relevant state agencies to develop a framework for implementation and accounting that tracks progress towards this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

In October 2020, CARB released a study which evaluated three scenarios that achieve carbon neutrality in California by 2045. The study was used by CARB in development of the 2022 Scoping Plan update, released May 10, 2022.¹⁷ More ambitious carbon reduction scenarios that achieve carbon neutrality prior to 2045 may be considered as part of future analyses by the State.

The scenarios analyzed to achieve carbon neutrality include a High Carbon Dioxide Removal (CDR) scenario, Zero Carbon Energy scenario, and a Balanced scenario. The High CDR scenario achieves GHG reductions by relying on CO₂ removal strategies. The Zero Carbon Energy scenario is based on the assumption of zero-fossil fuel emissions by 2045. The Balanced scenario represents a middle point between the High CDR scenario and Zero Carbon Energy scenario. The scenarios would achieve at least

15 The standards enacted in Pavley I are the first GHG standards in the nation for passenger vehicles and took effect for model years starting in 2009 and going through 2016. Pavley I could potentially result in 27.7 million metric tons CO₂e reduction in 2020. Pavley II will cover model years 2017 to 2025 and potentially result in an additional reduction of 4.1 million metric tons CO₂e.

16 Office of the Governor. “Governor Brown Established Most Ambitious Greenhouse Gas Reduction Target in North America.” April 29, 2015. <https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html>. Accessed November 2022.

17 Energy+Environmental Economics (E3). *Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board*. October 2020. https://ww2.arb.ca.gov/sites/default/files/2020-10/e3_cn_final_report_oct2020_0.pdf. Accessed November 2022.

an 80-percent reduction in GHGs by 2045, relative to 1990 levels. Remaining CO₂ would be reduced to zero by applying carbon dioxide removal strategies, including sinks from natural and working lands and negative emissions technologies like direct air capture.^{18,19}

Under each of these scenarios, CARB proposed reduction strategies for various sectors that contribute GHG emissions throughout the State. Although specific details are not yet available for the GHG reduction measures discussed above, implementation of these measures would require regulations to be enforced by the State.

Assembly Bill 32 and Related Legislation

AB 32, the Global Warming Solutions Act of 2006, requires a sharp reduction of GHG emissions to 1990 levels by 2020, which is consistent with the California Climate Action Team, which works to coordinate statewide efforts to implement global warming emission reduction programs and the state's Climate Adaptation Strategy after the passing of AB 32. To achieve these goals, AB 32 mandates that CARB establish a quantified emissions cap and institute a schedule to meet the cap; implement regulations to reduce Statewide GHG emissions from stationary sources consistent with the California Climate Action Team strategies; and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. To reach the reduction targets, AB 32 requires CARB to adopt—in an open, public process—rules and regulations that achieve the maximum technologically feasible and cost-effective GHG reductions.

The California Climate Action Team stated that “smart land use” is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. “Intelligent transportation systems” is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and the movement of people, goods, and service.²⁰

Climate Change Scoping Plan

CARB approved a Climate Change Scoping Plan (Scoping Plan) on December 11, 2008, as required by AB 32. The Scoping Plan proposed a “comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our

18 Sinks are defined as natural or artificial reservoirs that accumulate and store a carbon-containing chemical compound for an indefinite period.

19 Energy+Environmental Economics (E3), Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board, October 2020, p. 22.

20 California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature (March 2006), 58.

energy sources, save energy, create new jobs, and enhance public health.”²¹ The Scoping Plan had a range of GHG reduction actions, including direct regulations; alternative compliance mechanisms; monetary and nonmonetary incentives; voluntary actions; market-based mechanisms, such as a cap-and-trade system; and an AB 32 implementation regulation to fund the program.

The Scoping Plan called for a “coordinated set of strategies” to address all major categories of GHG emissions.²² Transportation emissions were to be addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard, and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to implement energy efficiency practices. Utility energy supplies will change to include more renewable energy sources through implementation of the Renewables Portfolio Standard. Established in 2002 under Senate Bill (SB) 1078, the California Renewables Portfolio Standards (RPS) were accelerated in 2006 under SB 107, which required that, by 2010, at least 20 percent of electricity retail sales come from renewable sources. In April 2016, the California Energy Commission (CEC) updated the RPS pursuant to SB 350, intended to set the new target 50 percent renewables by 2030.²³ This will be complemented with an emphasis on local generation, including rooftop photovoltaics and solar hot water installations. Additionally, the Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicated that substantial savings of electricity and natural gas would be accomplished through improving energy efficiency.

Subsequent to the adoption of the Scoping Plan, a lawsuit was filed challenging CARB’s approval of the Scoping Plan Functional Equivalent Document (Supplemental FED). On May 20, 2011 (Case No. CPF-09-509562), the court found that the environmental analysis of the alternatives in the Supplemental FED to the Scoping Plan was not sufficient under CEQA. CARB staff prepared a revised and expanded environmental analysis of the alternatives, and the Supplemental FED to the Scoping Plan was approved on August 24, 2011. The Supplemental FED to the Scoping Plan indicated that the potential exists for adverse environmental impacts associated with implementation of the various GHG emission reduction measures recommended in the Scoping Plan.

CARB updated the Scoping Plan in May 2014 (2014 Scoping Plan). The 2014 Scoping Plan²⁴ adjusted the 1990 GHG emissions levels to 431 million metric tons of carbon dioxide equivalents (MMTCO_{2e}); the updated 2020 GHG emissions forecast is 509 MMTCO_{2e}, which credited for certain GHG emission reduction

21 CARB. *Climate Change Scoping Plan: A Framework for Change*. December 2008. https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed November 2022.

22 CARB. *Climate Change Scoping Plan*, p. ES-7.

23 California Energy Commission (CEC). *Enforcement Procedures for the Renewables Portfolio Standards for Local Publicly Owned Electric Utilities: Amended Regulations*. April 12, 2016. <https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard/rps-enforcement-regulations-publicly>. Accessed November 2022.

24 CARB. *First Update to the Climate Change Scoping Plan: Building on the Framework Pursuant to AB 32, The California Global Warming Solutions Act of 2006*. May 2014. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed November 2022.

measures already in place (e.g., the RPS). The 2014 Scoping Plan also recommended a 40 percent reduction in GH emissions from 1990 levels by 2030, and a 60 percent reduction in GHG emissions from 1990 levels by 2040.

The 2017 Scoping Plan,²⁵ approved on December 14, 2017, builds on previous programs, and takes aim at the 2030 target established by the 2016 SB 32 (Pavley), which is further discussed below. The 2017 Scoping Plan outlines options to meet California’s aggressive goals to reduce GHGs by 40 percent below 1990 levels by 2030. In addition, the Scoping Plan incorporates the State’s updated RPS requiring utilities to procure 50 percent of their electricity from renewable energy sources by 2030. It also raises the State’s Low Carbon Fuel Standard and aims to reduce emissions of methane and hydrofluorocarbons by 40 percent from 2013 levels by 2030 and emissions of black carbon by 50 percent from 2013 levels.

The 2022 Scoping Plan,²⁶ adopted in November 2022, lays out the sector-by-sector roadmap for California, to achieve carbon neutrality by 2045 or earlier, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state’s climate target. This is a challenging but necessary goal to minimize the impacts of climate change. Previous plans have focused on specific GHG reduction targets for our industrial, energy, and transportation sectors—first to meet 1990 levels by 2020, then to meet the more aggressive target of 40 percent below 1990 levels by 2030. The 2022 Scoping Plan extends and expands upon these earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. This plan also takes the unprecedented step of adding carbon neutrality as a science-based guide and touchstone for California’s climate work. The 2022 Scoping Plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state’s natural and working lands and using a variety of mechanical approaches.

Cap-and-Trade Program

The Climate Change Scoping Plan identified a Cap-and-Trade Program as one of the strategies California would employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of ultimately achieving an 80-percent reduction from 1990 levels by 2050. Under the Cap-and-Trade Program, an overall limit on GHG emissions from capped sectors was established, and facilities subject to the cap will be able to trade permits to emit GHGs.

CARB designed and adopted a California Cap-and-Trade Program²⁷ pursuant to its authority under AB 32. The Cap-and-Trade Program was designed to reduce GHG emissions from public and private major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve the State’s emission-reduction mandates. The statewide cap for GHG emissions

25 CARB. *California’s 2017 Climate Change Scoping Plan*. November 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed November 2022.

26 CARB. *California’s 2022 Climate Change Scoping Plan*. November 2022. <https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf>. Accessed November 2022.

27 California Code of Regulations 17, Sections 95800-96023.

from the capped sectors²⁸ (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program’s duration.

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities that emit more than 25,000 MTCO₂e per year must comply with the Cap-and-Trade Program.²⁹ Triggering of the 25,000 MTCO₂e per year “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or “MRR”).³⁰

Each covered entity with a compliance obligation is required to surrender “compliance instruments”³¹ for each MTCO₂e of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), and can buy allowances at auction, purchase allowances from others, or purchase offset credits. The Cap-and-Trade Regulation provides a firm cap, ensuring that the statewide emission limits will not be exceeded.

In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State’s emissions forecasts and the effectiveness of direct regulatory measures.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.³² Accordingly, for projects that are subject to CEQA, GHG emissions associated with electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program’s first compliance period.³³

The Program applies to emissions that cover approximately 80 percent of the State’s GHG emissions. Demonstrating the efficacy of AB 32 policies, California achieved its 2020 GHG Reduction Target four years earlier than mandated. The largest reductions were the result of increased renewable electricity in the electricity sector, which is a covered sector in the Cap-and-Trade Program.

28 California Code of Regulations 17, Sections 95811, 95812.

29 California Code of Regulations 17, Section 95812.

30 California Code of Regulations 17, Sections 95100-95158.

31 Compliance instruments are permits to emit, the majority of which will be “allowances,” but entities also are allowed to use CARB-approved offset credits to meet up to 8% of their compliance obligations.

32 California Code of Regulations 17, Section 95811(b).

33 California Code of Regulations 17, Sections 95811, 95812(d).

AB 398 was enacted in 2017 to extend and clarify the role of the State's Cap-and Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade Program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

Pavley Standards

AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, requires CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In 2004, CARB approved the Pavley regulation to require automakers to control GHG emissions from new passenger vehicles for the 2009 through 2016 model years. Upon adoption of subsequent federal GHG standards by the United States Environmental Protection Agency (USEPA) that preserved the benefits of the Pavley regulations, the Pavley regulations were revised to accept compliance with the federal standards as compliance with California's standards in the 2012 through 2016 model years. This is referred to as the "deemed to comply" option.

In January 2012, CARB approved GHG emission regulations which require further reductions in passenger GHG emissions for 2017 and subsequent vehicle model years. As noted above, in August 2012, the USEPA and USDOT adopted GHG emission standards for model year 2017 through 2025 vehicles. On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017-2025 national standards to meet state law. Automobile manufacturers generally comply with these standards through a combination of improved energy efficiency in vehicle equipment (e.g., air conditioning systems) and engines as well as sleeker aerodynamics, use of strong but lightweight materials, and lower-rolling resistance tires.³⁴

Advanced Clean Cars Regulations

In 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2015-2025.³⁵ The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the ZEV regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.³⁶ During the March 2017 midterm

34 CARB. *California's Advanced Clean Cars Midterm Review: Summary Report for the Technical Analysis of the Light Duty Vehicle Standards*, pp. ES-17, C-9. January 18, 2017. https://ww2.arb.ca.gov/sites/default/files/2020-01/ACC%20MTR%20Summary_Ac.pdf. Accessed November 2022.

35 CARB. "California's Advanced Clean Cars Program." <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program>. Accessed November 2022.

36 CARB. "California's Advanced Clean Cars Program." <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program>. Accessed November 2022.

review, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light trucks sold in California through 2025.³⁷

In addition, Governor Gavin Newsom signed an executive order (Executive Order No. N-79-20) on September 23, 2020, that would phase out sales of new gas-powered passenger cars by 2035 in California with an additional 10-year transition period for heavy vehicles. The State would not restrict used car sales, nor forbid residents from owning gas-powered vehicles. In accordance with the executive order, CARB has developed a 2020 Mobile Source Strategy, a comprehensive analysis that presents scenarios for possible strategies to reduce the carbon, toxic and unhealthy pollution from cars, trucks, equipment, and ships. The strategies will provide important information for numerous regulations and incentive programs going forward by conveying what is necessary to address the aggressive emission reduction requirements.

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program. The ACC II regulations will focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year.

AB 197: Statewide GHG Emissions Limit

On September 8, 2016, Governor Brown signed AB 197, which requires CARB to approve a Statewide GHG emissions limit equivalent to the Statewide GHG emission level in 1990 to be achieved by 2020.³⁸ AB 197 requires the CARB to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions. The bill became effective on January 1, 2017.

AB 1279: California Climate Crisis Act

AB 1279³⁹ establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO₂ removal solutions and carbon capture, utilization, and storage (CCUS) technologies.

37 CARB. "News Release: CARB finds vehicle standards are achievable and cost-effective." <https://ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective>. Accessed November 2022.

38 California Legislative Information. *Assembly Bill No. 197*. September 8, 2016. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB197. Accessed November 2022.

39 California Legislative Information. *Assembly Bill No. 1279*. September 16, 2022. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1279. Accessed November 2022.

Senate Bills

Senate Bill 375

SB 375, signed into law in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations.⁴⁰ The act requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that prescribes land use allocation in that MPO's regional transportation plan (RTP).

Senate Bill X1-2: 2020 Renewable Portfolio Standard

On April 12, 2011, California governor Jerry Brown signed SB X1-2.⁴¹ This bill supersedes the 33 percent by RPS created by Executive Order S-14-08, previously signed by Governor Schwarzenegger. The RPS required that all retail suppliers of electricity in California serve 33 percent of their load with renewable energy by 2020. A number of significant changes are made in SB X1-2. It extends application of the RPS to all electric retailers in the State, including municipal and public utilities, and community choice aggregators.

SB X1-2 creates a three-stage compliance period for electricity providers to meet renewable energy goals: 20 percent of retail sales must be renewable energy products by 2013, 25 percent of retail sales must be renewable energy products by 2016, and 33 percent of retail sales must be renewable energy products by 2020. The 33 percent level must be maintained in the years that follow. This three-stage compliance period requires the RPS to be met increasingly with renewable energy that is supplied to the California grid and is located within or directly proximate to California. SB X1-2 mandates that renewables from this category make up:

- At least 50 percent for the 2011-2013 compliance period;
- At least 65 percent for the 2014-2016 compliance period; and
- At least 75 percent for 2016 and beyond.

SB X1-2 sets rules for the use of Renewable Energy Credits (RECs) as follows:

- Establishes a cap of no more than 25 percent unbundled RECs going toward the RPS between 2011 and 2013, 15 percent from 2014 to 2016, and 10 percent thereafter;
- Does not allow for the grandfathering of tradable REC contracts executed before 2010, unless the contract was (or is) approved by the California Public Utilities Commission (CPUC);
- Allows banking of RECs for 3 years only; and

40 California Legislative Information. *Senate Bill No. 375*. September 30, 2008. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375. Accessed November 2022.

41 CEC. "Renewable Portfolio." <http://www.energy.ca.gov/portfolio>. Accessed November 2022.

- Allows energy service providers, community choice aggregators, and investor-owned utilities with 60,000 or fewer customers to use 100 percent RECs to meet the RPS.

SB X1-2 also eliminates the Market Price Referent, which was a benchmark to assess the above-market costs of RPS contracts based on the long-term ownership, operating, and fixed-price fuel costs for a new 500-megawatt (mW) natural-gas-fired, combined-cycle gas turbine.

Senate Bill 350: Clean Energy and Pollution Reduction Act

SB 350, the Clean Energy and Pollution Reduction Act of 2015, was signed on October 7 of that year.⁴² SB 350 implements some of the goals of Executive Order B-30-15 described above. The objectives of SB 350 are: (1) to increase the procurement of our electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.⁴³

Senate Bill 32 and Assembly Bill 197

Enacted in 2016, SB 32 (Pavley, 2016) codifies the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that Statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. The reduction of GHG emissions is a priority for development projects throughout the State and is achieved through a combination of policies, planning, direct regulations, market approaches, incentives, and voluntary efforts. Generally speaking, the focus of GHG emission reductions is on energy production and motor vehicles.

SB 32 was coupled with a companion bill: AB 197 (Garcia, 2016). Designed to improve the transparency of CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning Statewide programs, policies and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its website; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

Senate Bill 905

SB 905⁴⁴ requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology.

42 California Legislative Information. *Senate Bill No. 350*. October 7, 2015. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350. Accessed November 2022.

43 California Legislative Information. *Senate Bill 350 (2015-2016 Reg, Session) Stats 2015, ch. 547*. Accessed November 2022

44 California Legislative Information. *Senate Bill No. 905*. September 16, 2022. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB905. Accessed November 2022.

SB 905 requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. SB 905 also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project. *Center for Biological Diversity v. California Department of Fish and Wildlife*.

The California Supreme Court's decision published on November 30, 2015, in *Center for Biological Diversity v. California Department of Fish and Wildlife* (Case No. 217763; the Newhall Ranch case) reviewed the methodology used to analyze GHG emissions in an EIR prepared for a project that proposed 20,885 dwelling units with 58,000 residents on 12,000 acres of undeveloped land in a rural area of the City of Santa Clara.⁴⁵ That EIR used the "business as usual" (BAU) methodology to determine whether the project would impede the State of California's compliance with statutory emissions reduction mandate established by the AB 32 Scoping Plan. The Court did not invalidate the BAU approach entirely, but did hold that:

...the Scoping Plan nowhere related that statewide level of reduction effort to the percentage of reduction that would or should be required from individual projects, and nothing [Department of Fish and Wildlife] or Newhall have cited in the administrative record indicates the required percentage reduction from business as usual is the same for an individual project as for the entire state population and economy.⁴⁶

The California Supreme Court suggested regulatory consistency as a pathway to compliance, stating that a Lead Agency might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. The Court recognized that to the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan, and adopted by CARB or other State agencies, a Lead Agency could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill a Statewide plan for the reduction or mitigation of greenhouse gas emissions.

This approach is consistent with CEQA Guidelines Section 15064, which provides that a determination that an impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including plans or regulations for the reduction of greenhouse gas emissions.

As further discussed below, the City's CAP acts as a roadmap for achieving community-wide GHG emissions reductions. The CAP includes a baseline GHG emissions inventory for 2010 through to a projection of emissions for 2020, 2030, and 2040, the time horizon of the General Plan, local GHG emissions reduction strategies and measures to help the City achieve State-level emissions reduction targets for 2020 and 2030, climate adaptation measures for the City, and implementation and monitoring mechanisms to

45 California Department of Fish and Wildlife. *Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan*. <https://www.wildlife.ca.gov/regions/5/newhall>. Accessed November 2022.

46 *Center for Biological Diversity et al. v. California Department of Fish and Wildlife* (2015) (62 Cal.4th 204, 195 Cal.Rptr.3d 247, 361 P.3d 342).

ensure the City's measures and targets are achieved. The CAP establishes GHG emissions reduction goals of 13 percent in 2020 and 27 percent in 2030.⁴⁷

California Energy Commission

Title 24, Building Standards Code and CALGreen Code

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.”⁴⁸ The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.⁴⁹

On August 11, 2021, the CEC adopted the 2022 Title 24 Standards, which will come into effect on January 1, 2023. The 2022 Title 24 standards continue to improve upon the 2019 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings which encourage use of electric heat pumps, requiring newly constructed residences to be electric ready and introduces solar and battery storage standards as an optional measure to achieve compliance and increase minimum ventilation requirements to improve air quality. The 2022 Title 24 standards also require that, for building permits submitted on or after January 1, 2023, proposed buildings meeting

47 City of Indio. *Climate Action Plan*. <https://www.indio.org/home/showpublisheddocument/892/637874291154670000>. Accessed November 2022.

48 California Building Standards Commission. 2010 California Green Building Standards Code (2010).

49 See 14 Cal. Code Regs. §§ 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).

specified use and criteria include the installation of a photovoltaic system and battery storage systems based on feasibility and square footage available. Compliance with Title 24 is enforced through the building permit process.

California Appliance Efficiency Regulations (Title 20, Sections 1601 through 1608)

The 2016 Appliance Efficiency Regulations, adopted by the CEC, include standards for new appliances, equipment, and lighting if are sold or offered for sale in California. These standards include minimum levels of operating efficiency and other cost-effective measures to promote the use of energy- and water-efficient appliances.

CEQA Guidelines

In August 2007, the California State Legislature adopted Senate Bill 97 (SB 97) (Chapter 185, Statutes of 2007), requiring the OPR to prepare and transmit new CEQA Guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In response to SB 97, the OPR adopted CEQA guidelines that became effective on March 18, 2010.

However, neither a threshold of significance or any specific mitigation measures are included or provided in the guidelines.⁵⁰ The guidelines require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Discretion is given to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. 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]). Furthermore, three factors are identified that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.⁵¹

50 See 14 Cal. Code Regs. §§ 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).

51 14 Cal. Code Regs. § 15064.4(b).

Furthermore, while project- and cumulative level- significance determinations are provided below, 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.⁵²

Regional and Local

Southern California Association of Governments

Sustainable Communities Strategy

The City is a member agency of the Southern California Association of Governments (SCAG). To fulfill its commitments as an MPO under the Sustainable Communities and Climate Protection Act, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016-2040 RTP/SCS). The 2016-2040 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. It is designed to reduce GHG emissions from passenger vehicles by 8 percent per capita by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2 percent greater reduction compared to the projection contained in the 2012-2035 RTP/SCS. The 2016-2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012-2035 RTP/SCS. The SCS focuses the majority of new regional housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs/housing balance and more opportunities for TOD. Many of Los Angeles's transportation corridors are SCS high-quality transit areas.

The SCS identifies several GHG emission reduction actions and strategies for the State, SCAG, and local jurisdictions. The SCS recommends that local jurisdictions (1) update zoning codes to accelerate adoption of SCS land use strategies; (2) prioritize transportation investments to support compact infill development that includes a mix of land uses and housing options; (3) develop infrastructure plans and educational programs that promote active transportation options; (4) emphasize active transportation projects as part of complying with the Complete Streets Act of 2008 (AB 1358); and (5) increase the efficiency of existing transportation systems.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990.⁵³ The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan (AQMP). In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

52 See, for example, Letter from Cynthia Bryant, Director of the Governor's Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.

53 SCAQMD. "SCAQMD's Historical Activity on Climate Change." <http://www.aqmd.gov/nav/about/initiatives/climate-change>. Accessed November 2022.

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds.⁵⁴ The SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 MTCO₂e per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO₂e per year would be assumed to have a less than significant impact on climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 MTCO₂e per year for stationary source/industrial projects where SCAQMD is the lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects). The Working Group has been inactive since 2011, and SCAQMD has not formally adopted any GHG significance threshold for other jurisdictions.

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) received a grant from the Southern California Edison Company to prepare a Regional Greenhouse Gas Inventory for the Coachella Valley in conjunction with SCAQMD.⁵⁵ This inventory provides the most recent estimate of greenhouse gas generation for the Agua Caliente Band of Cahuilla Indians (Tribe), the Cabazon Band of Mission Indians, and each City within the CVAG planning area. CVAG intends to continue supporting planning for GHG reduction by pursuing additional grants to develop a model Climate Action Plan reduction plan to assist the Tribe and cities in the Coachella Valley served by Southern California Edison in developing individual plans.

Valley-wide Voluntary Green Building Program

The Voluntary Green Building Program was designed to help builders, developers, and homeowners to go above and beyond California's Energy Code in terms of energy efficiency. As part of this Program, cities have committed to making it easier for those voluntarily participating in the Program to process their plans through the planning and building departments. The Voluntary Program and the California Building

54 SCAQMD. "Greenhouse Gases CEQA Significance Thresholds." <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2>. Accessed November 2022.

55 SCAQMD/CVAG. *Draft Regional Greenhouse Gas Inventory for the Coachella Valley*, June 2011. https://www.cvag.org/library/pdf_files/enviro/CV%20GHG%20Inventory%20-%20Draft%20-%2006-2011.pdf. Accessed November 2022.

Code are based upon standards and measurements, the Voluntary Program includes an extensive checklist of specific actions, and how they are counted toward a more energy efficient building.⁵⁶

City of Indio

Climate Action Plan

On September 18, 2019 the City adopted a Climate Action Plan (CAP)⁵⁷ as a roadmap for achieving community-wide GHG emissions reductions. In summary, the CAP:

- Establishes the City’s goals for addressing the issue of climate change with consideration to the statewide reduction goal outlined in Assembly Bill 32 and Senate Bill 32;
- Demonstrates how the City can assist the region and the Southern California Association of Governments (SCAG) in reducing GHG emissions from cars and light trucks, consistent with California Air Resources Board (CARB) targets for the SCAG region: 8 percent per capita reduction from 2005 levels by 2020 and a 13 percent per capita reduction from 2005 levels by 2035;
- Quantifies both community and municipal GHG emissions in 2010 through an updated emissions inventory, using new modeling methodology adopted by the International Council for Local Environmental Initiatives (ICLEI)/Statewide Energy Efficiency Collaborative (SEEC) and recommended by the Governor’s Office of Planning and Research (OPR);
- Forecasts future emissions that would occur through 2020, 2030, and 2040 (time horizon of the General Plan);
- Assesses forecasted local emissions against the per capita equivalent of statewide emissions targets;
- Develops and selects locally based implementation measures consisting of policies, programs, and/or plans to achieve emissions reductions that would meet or exceed the established GHG reduction targets; and
- Provides the framework for future projects to tier from the CAP analysis, consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15183.5(b).

The CAP identifies and mitigates significant greenhouse emissions at a programmatic level, allowing future projects (that meet certain requirements) to refer to the CAP for general environmental analysis. As detailed in the CAP, the California Air Pollution Control Officers Association (CAPCOA) Guidance has provided guidance documents for quantifying GHG emissions and reduction measures. The report provides guidance for lead agencies in California determining the significance thresholds for GHG emissions. The report references 900 MTCO₂e as a conservative threshold for determining when further analysis is required. This threshold is intended as a bright-line test that would exempt projects that are

56 CVAG. *A Guide to the Valley-Wide Voluntary Green Building Program*. https://www.cvag.org/library/pdf_files/enviro/Voluntary%20Green%20Building%20Program%20Guide.pdf. Accessed November 2022.

57 City of Indio. *Climate Action Plan*. Adopted September 18, 2019. <https://www.indio.org/home/showpublisheddocument/892/637874291154670000>. Accessed November 2022.

too small to have significant impacts from further analysis. For proposed projects above the screening thresholds, the City's CAP states that project applicants shall complete the Climate Ready Development Review Checklist (Appendix A of the CAP). For each item on the checklist, the applicant indicates whether the measure is included as part of the project, or if it is not applicable. The checklist is designed to reflect the targets set for the measures presented in the CAP.

ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change

GHGs are global pollutants that have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere for a long enough time to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule depends on multiple variables and cannot be pinpointed, more CO₂ is currently emitted into the atmosphere than is avoided or sequestered. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through photosynthesis and dissolution, respectively. These are two of the most common processes of CO₂ sequestration. Of the total annual human-caused CO₂ emissions, approximately 54 percent is sequestered within a year through ocean uptake, northern hemisphere forest regrowth, and other terrestrial sinks; the remaining 46 percent of human-caused CO₂ emissions are stored in the atmosphere.

Similarly, the effects of GHGs are borne globally (sea-level rise, hurricanes, droughts, etc.), as opposed to the localized air quality effects of criteria air pollutants and toxic air contaminants (TACs). The quantity of GHGs that it takes to ultimately result in climate change is not precisely known, but that quantity is enormous. No single project would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or microclimates. However, it is the combined GHG contributions per project that create an impact.

Greenhouse Effect

GHGs play a critical role in determining the Earth's surface temperature because these gases absorb solar radiation. Solar radiation enters the Earth's atmosphere from space. A portion of the radiation is absorbed by the Earth's surface, and a smaller portion of this radiation is reflected back into space. The radiation absorbed by the Earth is reradiated as lower-frequency infrared radiation, which is then selectively absorbed by GHGs in the Earth's atmosphere. As a result, the greater the amount of GHGs in the atmosphere, the greater the amount of infrared radiation trapped, resulting in a warming of the atmosphere. This phenomenon is commonly referred to as the "greenhouse effect." Scientists have speculated that increased GHG emissions from human activity (anthropogenic) could lead to a less habitable climate. Anthropogenic GHG emissions leading to atmospheric levels in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the Earth's atmosphere and oceans, with corresponding effects on global air and water circulation patterns and climate. CO₂ emissions associated with fossil fuel combustion are the primary contributors to human-induced emissions.

Climate Change Effects for California

Climate change could affect environmental conditions in California in a variety of ways. One effect of climate change is rising sea levels. Sea levels along the California coast rose approximately 7 inches during the last century, and they are predicted to rise an additional 7 to 22 inches by 2100, depending on the future levels of GHG emissions. The effects of a rise in sea level could include increased coastal flooding, saltwater intrusion (especially a concern in the low-lying Sacramento-San Joaquin Delta, where pumps delivering potable water to Southern California could be threatened), and disruption of wetlands.

As the State's climate changes over time, the range of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species would become extinct or be extirpated from the State if suitable conditions are no longer available. Additional concerns associated with climate change include a reduction in the snowpack, leading to less overall water storage in the mountains (the largest "reservoir" in the State), and increased risk of wildfires caused by changes in rainfall patterns and plant communities. Changes in the climate can also impact California's weather patterns and rainfall, causing droughts in certain areas and flooding in others.

Sources of Greenhouse Gas Emissions

GHGs are the result of both natural and anthropogenic activities. With respect to anthropogenic activities, motor vehicle travel, air travel, consumption of fossil fuels for power generation, industrial processes, heating and cooling, landfills, agriculture, and wildfire are the primary sources of GHG emissions. Additionally, land use decisions and future development projects pursuant to implementation of a general plan can affect the generation of GHG emissions from multiple sectors, resulting in direct or indirect GHG emissions. For example, electricity consumed in the lighting and heating of buildings is an indirect source of GHG emissions because it requires electricity from power plants, which emits GHG directly into the atmosphere. Conversely, tailpipe emissions from the use of vehicles generates direct GHG emissions.

GHGs are a group of emissions that include CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and nitrogen trifluoride (NF₃). Carbon dioxide is the most abundant GHG. As stated above, other GHGs are less abundant, but have higher global warming potential than CO₂. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂; denoted as CO₂e. A general description of GHGs discussed is provided in **Table 5.7-1: Description of Identified Greenhouse Gases.**

**TABLE 5.7-1
DESCRIPTION OF IDENTIFIED GREENHOUSE GASES**

GHG	General Description
Carbon Dioxide (CO₂)	An odorless, colorless GHG that has both natural and anthropocentric sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO ₂ are burning coal, oil, natural gas, and wood.
Methane (CH₄)	A flammable gas and is the main component of natural gas. When one molecule of CH ₄ is burned in the presence of oxygen, one molecule of CO ₂ and two molecules of water are released. A natural source of CH ₄ is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH ₄ , which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N₂O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N ₂ O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH ₄ or ethane (C ₂ H ₆) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987. HFCs are synthetic man-made chemicals that are used as substitute for CFCs as refrigerants. HFCs deplete stratospheric ozone, but to a much lesser extent than CFCs.
Perfluorinated Chemicals (PFCs)	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semi-conduction manufacturing.
Sulfur Hexafluoride (SF₆)	An inorganic, odorless, colorless, nontoxic, and nonflammable gas. SF ₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.
Nitrogen Trifluoride (NF₃)	An inorganic, nontoxic, odorless, nonflammable gas. NF ₃ is used in the manufacture of semiconductors, as an oxidizer of high energy fuels, for the preparation of tetrafluoro hydrazine, as an etchant gas in the electronic industry, and as a fluorine source in high power chemical lasers.

^a GHGs identified in this table are ones identified in the Kyoto protocol and other synthetic gases recently added to the IPCC's Fifth Assessment Report.

Greenhouse Gas Emissions Inventory and Trends

Existing Statewide GHG Emissions

California is the second largest contributor of GHGs in the United States and the 16th largest in the world.⁵⁸ In 2020, California produced 369.1 million metric tons of carbon dioxide equivalents (MMTCO₂e), including imported electricity, and excluding combustion of international fuels and carbon sinks or storage. The major source of GHGs in California is transportation, contributing to 37 percent of the State's total GHG emissions. The Statewide inventory of GHGs by sector is shown in **Table 5.7-2: California GHG Inventory 2012–2020**.

TABLE 5.7-2 CALIFORNIA GHG INVENTORY 2012–2020									
Main Sector	Emissions (MMTCO ₂ e)								
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Transportation ^a	156.9	157.0	157.7	161.5	165.2	166.6	165.3	162.4	135.8
Electric Power	98.9	93.4	89.8	86.0	70.4	64.2	65.0	60.2	59.5
Industrial ^b	80.7	83.0	85.2	83.2	81.6	81.7	81.9	80.4	73.3
Commercial and Residential	39.2	39.1	35.6	36.3	37.2	37.6	37.4	40.5	38.7
Agriculture	35.2	33.9	33.9	32.6	32.2	31.7	32.2	31.4	31.6
High GWP ^{c,d}	15.5	16.8	17.7	18.6	19.4	20.1	20.5	20.7	21.3
Recycled and waste	8.2	8.3	8.3	8.4	8.5	8.6	8.7	8.8	8.9
Total Emissions	434.6	431.5	428.2	426.6	414.5	410.5	411.0	404.4	369.1

Source: CARB. GHG Current California Emission Inventory Data. <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed November 2022.

^a Includes equipment used in construction, mining, oil drilling, industrial and airport ground operations.

^b Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions.

^c These categories are listed in the Industrial sector of CARB's GHG Emission Inventory sectors.

^d This category is listed in the Electric Power sector of CARB's GHG Emission Inventory sectors.

Note: MMTCO₂e - million metric tons of carbon dioxide equivalent emissions

Regional Emissions

The breakdown of GHG emissions within the Coachella Valley follows the statewide pattern with the most significant sources of GHGs being transportation and fuel combustion, and electricity generation. On-road transportation and fuel combustion account for 94 percent of GHGs in the Coachella Valley. The Coachella Valley region produced 4.31 MMTCO₂e GHGs in 2005 from direct emissions.⁵⁹

58 CEC. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report, CEC-600-2006-013-SF*. December 2006.

59 South Coast Air Quality Management District. *Greenhouse Gas (GHG) Inventories for the Coachella Valley, prepared for the Coachella Valley Association of Governments*. June 2011.

Project Site

The Project Site consists of vacant land. Consequently, no GHG emissions are currently generated from the Project Site.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of GHG emissions impacts (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact if it would:

- Threshold 5.7-1:** **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.**
- Threshold 5.7-2:** **Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.**

Pursuant to State CEQA Guidelines Section 15064.4, the methods suitable for analysis of GHG emissions are:

- Use a model or methodology to quantify greenhouse gas emissions resulting from a project. The Lead Agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The Lead Agency should explain the limitation of the particular model or methodology selected for use.
- Rely on a qualitative analysis or performance-based standards.

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for reducing GHG emissions. Nor have SCAQMD, OPR, CARB, CAPCOA, or any other state or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigation GHG emissions (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 Threshold #1, the project's GHG emissions are assessed by evaluating the project's consistency with the City's CAP. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG-related impacts on the environment.

As discussed above, for proposed projects above the 900 MTCO₂e screening threshold, the City's CAP states that project applicants shall complete the Climate Ready Development Review Checklist (Appendix A of the CAP). For each item on the checklist, the applicant should indicate whether the measure is included as part of the project, or if it is not applicable. The checklist is designed to reflect the targets set for the measures presented in in the CAP including statewide reduction goals outlined in AB 32 and SB 32.

Consistency Analysis

The Project's GHG impacts are evaluated by assessing the Project's consistency with applicable GHG reduction strategies and local actions adopted by the City.

OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. As discussed previously, the City's CAP Includes the Climate Ready Development Review Checklist which includes project features designed to reduce the generation and emission of GHGs. In addition, CARB's Climate Change Scoping Plan includes a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, market-based mechanisms, and an AB 32 implementation regulation. Thus, if the Project is designed in accordance with these policies and regulations, the Project would result in a less-than-significant impact, because it would be consistent with the overarching State regulations on GHG reduction (AB 32).

A consistency analysis is provided below and describes the Project's compliance with, or exceedance of, performance-based standards included in the regulations outlined in the applicable portions of CARB's Climate Change Scoping Plan, SCAG's 2020–2045 RTP/SCS, and the City's CAP.

Methodology

Methodologies for Evaluating Significance

The analysis of the Project's GHG emissions consists of a quantitative analysis of the GHG emissions generated by the Project and a qualitative analysis of the Project's consistency with adopted GHG-related legislation, plans, and policies. This approach is in accordance with CEQA Guidelines Section 15064.4, which affirms the discretion of a lead agency to determine, in the context of a particular project, whether to use quantitative and/or qualitative methodologies to determine the significance of a project's impacts.

Emissions Inventory Modeling

The total GHG emissions from the Project were quantified to determine the level of the Project's estimated annual GHG emissions. As with the Air Quality section of this EIR (see Section 5.2), construction emissions were estimated using CalEEMod 2020.4.0 by assuming a conservative estimate of construction activities and applying the mobile-source emissions factors. SCAQMD's Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold⁶⁰ recognizes that construction-related GHG emissions from projects occur over a relatively short-term period of time and contributes a relatively small portion of a project's overall lifetime GHG emissions. The guidance recommends that a project's construction-related GHG emissions be amortized over a 30-year project lifetime so that GHG

60 SCAQMD. *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. December 5, 2006. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2). Accessed November 2022.

reduction measures will address construction GHG emissions as part of the operation GHG reduction strategies.

CalEEMod was also used to estimate operational GHG emissions from electricity, natural gas, solid waste, water and wastewater, and landscaping equipment. CalEEMod calculates energy use from systems covered by Title 24 (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting. Mobile-source emissions were estimated based on the CARB EMFAC model and data provided by the Project's Transportation Study. The Project is expected to generate approximately 6,470 daily trips.⁶¹

With regard to energy demand, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates GHG emissions. Energy demand rates were estimated based on square footage as well as predicted water supply needs for this use. Energy demand (off-site electricity generation and on-site natural gas consumption) for the Project was calculated within CalEEMod using the CEC's CEUS data set, which provides energy demand by building type and climate zone.

Emissions of GHGs from solid waste disposal were also calculated using CalEEMod software. The emissions are based on the waste disposal rate for the land uses, the waste diversion rate, and the GHG emission factors for solid waste decomposition. The GHG emission factors, particularly for methane, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are Statewide averages, were used in this assessment.

Emissions of GHGs from water and wastewater result from the required energy to supply and distribute the water and treat the wastewater. Wastewater also results in emissions of GHGs from wastewater treatment systems. Emissions are calculated using CalEEMod and are based on the water usage rate for residential use; the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment; the GHG emission factors for the electricity utility provider; and the emission factors for the wastewater treatment process.

With respect to emission rates, CalEEMod incorporates EMFAC2017 emission rates by vehicle class and vehicle process. Specific CO₂ emissions, EMFAC and subsequently CalEEMod take into account the following emission processes related to CO₂ on an annual basis:

- Start Exhaust: Extra emissions that occur when starting a vehicle.
- Idle Exhaust: Emissions occur during extended idling events or when the vehicle is not operating any significant distance.

61 Fehr and Peers. *Pulte Homes Development North Indio Transportation Study*. June 2022. See **Appendix K**.

- Run Exhaust: Emissions occur when traveling on the road, including at speed and idling, as part of normal driving.

Project Impacts

Threshold 1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Construction activity impacts are relatively short in duration, they contribute a relatively small portion of the total lifetime GHG emissions of a project. The combustion of fossil fuels in construction equipment results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. Emissions of GHG would also result from the combustion of fossil fuels from haul trucks and vendor trucks delivering materials, and construction worker vehicles commuting to and from the Project Site. Typically, light-duty and medium-duty automobiles and trucks would be used for worker trips and heavy-duty trucks would be used for vendor trips. The vast majority of motor vehicles used for worker trips rely on gasoline as an energy source while motor vehicles used for vendor trips would primarily rely on diesel as an energy source. In addition, GHG emissions-reduction measures for construction equipment are relatively limited. Therefore, in its *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*, the SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. That method is used in this analysis.

Construction activities would last approximately 96 months beginning March 2024 and ending March 2032. The first 6 months of construction would include mass grading of the entire site and off-site street improvements. The remainder of the construction timeline includes construction of the proposed homes which would be broken down into approximately 80 to 100 phases. Each phase would include the development of 14 to 20 homes over approximately 3 acres per phase. Each phase would last approximately 8 months and include precise grading of the 3-acre area, building construction of the homes, paving of streets and driveways, and finishings (architectural coatings, landscaping, etc.). The total emissions from construction of the Project are shown in **Table 5.7-3: Construction GHG Emissions**. As recommended by SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.⁶² Total GHG emissions from the construction activities are 16,051 MTCO₂e. The total GHG emissions were amortized over 30-year project lifetime at 535 MTCO₂e per year.

62 SCAQMD. "Governing Board Agenda Item 31." December 8, 2008.

**TABLE 5.7-3
CONSTRUCTION GHG EMISSIONS**

Construction Phase	MTCO ₂ e/Year
2024	3,414
2024	172
2025	1,720
2026	1,739
2027	1,733
2028	1,722
2029	1,724
2030	1,918
2031	1,809
2032	100
Overall Total	16,051
30-Year Annual Amortized Rate	535

Refer to **Appendix D** for Greenhouse Gas Data.

Notes: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

Operation

Emissions from mobile and area sources and indirect emissions from energy and water use, wastewater, as well as waste management would occur every year after full development of the uses allowed by the Project. This section addresses operational GHG emissions.

Area Sources

The area source GHG emissions included in this analysis result primarily from consumer products and landscaping-related fuel combustion sources, such as lawn mowers. GHG emissions due to natural gas combustion in buildings for heating are excluded from area sources since they are included in the emissions associated with building energy use.

Consumer products are various solvents used in non-industrial applications which emit Reactive Organic Gases (ROGs) during their product use. Consumer products include cleaning supplies, kitchen aerosols, cosmetics, and toiletries. All land use buildings are assumed to be repainted at a rate of 10 percent of area per year. This is based on the assumptions used by SCAQMD. However, CalEEMod does not consider architectural coatings and consumer products to be sources of GHG.

The GHG emissions for the Project were calculated using CalEEMod. CalEEMod defaults were used for landscape maintenance emissions. Project emissions would result in 19 MTCO₂e per year from area sources (refer to **Appendix D** for GHG data).

Energy Sources

GHGs are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO₂ and other GHGs directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. GHGs are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emission in an indirect manner.

Estimated emissions from the combustion of natural gas and other fuels from the implementation of the Project are calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the energy usage by applicable emissions factors chosen by the utility company. GHG emissions from electricity use are directly dependent on the electricity utility provider. In this case, GHG intensity factors for Imperial Irrigation District were selected in CalEEMod. Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building, such as plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

The Project would generate 555 MTCO₂e per year from electricity consumption and 1,218 MTCO₂e per year from natural gas consumption (refer to **Appendix D** for GHG data). Therefore, the total energy source emissions for the Project would be 1,773 MTCO₂e per year.

Mobile Sources Emissions

Vehicle trips generated by growth within the Project Site vicinity would result in operational emissions through the combustion of fossil fuels. According to the Project's Transportation Study, the Project is expected to generate approximately 6,470 daily trips.⁶³ The Project's mobile source emissions would result in 4,165 MTCO₂e per year (refer to **Appendix D** for GHG data).

Solid Waste Emissions

Solid waste generation and associated emissions are calculated based on the square footage of the Project area, using default data found in CalEEMod for the proposed land uses. The program quantifies the GHG emissions associated with the decomposition of the waste which generates methane based on the total amount of degradable organic carbon. Disposal of organic waste in landfills can lead to the generation of CH₄, a potent GHG. By generating solid waste, the Project would contribute to the emission of fugitive CH₄ from landfills, as well as CO₂ and N₂O from the operation of trash collection vehicles. The Project's solid waste emissions would result in 347 MTCO₂e per year (refer to **Appendix D** for GHG data).

63 Fehr and Peers. *Pulte Homes Development North Indio Transportation Study*. June 2022. See **Appendix K**.

Water Consumption and Wastewater Emissions

California’s water conveyance system is energy intensive, with electricity used to pump and treat water. The Project will result in indirect GHG emissions due to water consumption and wastewater generation. Water consumption and wastewater generation, and their associated emissions, are calculated based on the square footage of the proposed land uses, using CalEEMod data. The Project’s water and wastewater GHG emissions would be 251 MTCO₂e per year (refer to **Appendix D** for GHG data).

Total Emissions

As shown in **Table 5.7-4: Total Operational GHG Emissions**, the Project’s GHG emissions would result in a total of 7,090 MTCO₂e per year.

TABLE 5.7-4 TOTAL OPERATIONAL GHG EMISSIONS	
Source	Unmitigated MTCO ₂ e per year
Construction (amortized)	535
Area	19
Energy	1,773
Mobile	4,165
Waste	347
Water	251
Total	7,090

Refer to **Appendix D** for Greenhouse Gas Data.

Notes: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

It should be noted that each source category of GHG emissions from the Project would be subject to a number of regulations that directly or indirectly reduce climate change-related emissions:

- **Stationary and Area Sources:** Emissions from small on-site sources are subject to specific emission reduction mandates and/or are included in the State’s Cap-and-Trade program.
- **Energy:** Both construction and operational activities associated with the Project would generate energy-related emissions that are covered by the State’s renewable portfolio mandates, including SB 350, which requires that at least 50 percent of electricity generated and sold to retail customers from renewable energy sources by December 31, 2030.
- **Transportation:** Both construction and operational activities associated with the Project would generate transportation-related emissions from combustion of fossil fuels that are covered in the State’s Cap-and-Trade program.
- **Building Structures:** Operational efficiencies would be incorporated into the Project that reduce energy use and waste, as mandated by CALGreen, such as use of energy efficient windows and construction materials.

- **Water and Wastewater use:** The Project would be subject to drought-related water conservation emergency orders and related State Water Quality Control Board restrictions.
- **Major appliances:** The Project would include major appliances that are regulated by CEC requirements for energy efficiency.
- **Solid Waste Management:** The Project would be subject to solid waste diversion policies that reduce GHG emissions, such as the City’s recycling program.

As discussed under **Threshold 5.7-2** below, the Project adheres to regulatory compliance measures that would reduce the Project’s GHG emissions profile. The analysis below shows that the Project would not conflict with applicable plans including CARB’s Climate Change Scoping Plan, SCAG’s 2020–2045 RTP/SCS, or the City’s CAP. As such, the Project would have a less than significant direct or indirect GHG impact on the environment

Threshold 5.7-2: Would the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Climate Change Scoping Plan

Table 5.7-5: Project Consistency with Climate Change Scoping Plan contains a list of GHG-reducing strategies set forth in the Climate Change Scoping Plan that are applicable to the Project. The analysis presented in **Table 5.7-5** describes the Project’s compliance and consistency with these strategies as outlined in the State’s Climate Change Scoping Plan to reduce GHG emissions. As shown in **Table 5.7-5**, the Project would not conflict with the policies included in the Climate Change Scoping Plan.

TABLE 5.7-5 PROJECT CONSISTENCY WITH CLIMATE CHANGE SCOPING PLAN		
Regulation, Actions, and Strategies	Responsible Party(ies)	Proposed Project Consistency Analysis
California Code of Regulations (CCR), Title 20: The 2016 Appliance Efficiency Regulations, adopted by the California Energy Commission (CEC), include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California.	State and CEC	No Conflict. The Project would develop new buildings that would be outfitted with appliances and lighting that comply with CEC’s standards. These standards are included in the default parameters provided in CalEEMod and are reflected in the Project-related GHG emissions provided above.
CCR, Title 24, Building Standards Code: The 2019 Building Energy Efficiency Standards contained in Title 24, Part 6 (also known as the California Energy Code), requires the design of building shells and building components to conserve energy.	State and CEC	No Conflict. Consistent with regulatory requirements, the Project would comply with applicable provisions of the California Green Building Standards Code.
The California Green Building Standards Code (Part 11, Title 24) established mandatory and voluntary standards on planning and design for sustainable site development, energy efficiency (extensive update of the California Energy		

**TABLE 5.7-5
PROJECT CONSISTENCY WITH CLIMATE CHANGE SCOPING PLAN**

Regulation, Actions, and Strategies	Responsible Party(ies)	Proposed Project Consistency Analysis
Code), water conservation, material conservation, and internal air contaminants.		
Assembly Bill 1109 (AB 1109): The Lighting Efficiency and Toxic Reduction Act establishes standards structured to reduce average statewide electrical energy consumption by not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018. ^b	State/ Manufacturers	No Conflict. The Project would not conflict with the requirements under AB 1109 because it would comply with local and state green building programs and incorporates energy efficient lighting and other required measures that would reduce electricity consumption.
Assembly Bill 1279 (AB 1279): Requires the state both to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels.	State	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Senate Bill 905 (SB 905): Requires the state board to establish a Carbon Capture, Removal, Utilization, and Storage Program, as provided, to evaluate the efficacy, safety, and viability of carbon capture, utilization, or storage (CCUS) technologies and carbon dioxide removal (CDR) technologies and facilitate the capture and sequestration of carbon dioxide from those technologies, where appropriate.	State	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
Per SB 350, double statewide energy efficiency savings in electricity and fossil gas end uses by 2030, through a combination of energy efficiency and fuel substitution actions.	State, CEC	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR/SGC, CARB	No Conflict. The Project would not conflict with this policy as this policy would not be implemented at the project level.
CCR, Title 24, Building Standards Code: The California Green Building Standards Code (Part 11, Title 24) includes water efficiency requirements for new residential and non-residential uses, in which buildings shall demonstrate a 20-percent overall water use reduction.	State	No Conflict. Consistent with regulatory requirements, the Project would comply with applicable provisions of the California Green Building Standards Code.
CARB In-Use Off-Road Regulation: CARB's in-use off-road diesel vehicle regulation ("Off-Road Diesel Fleet Regulation") requires the owners of off-road diesel equipment fleets to meet fleet average emissions standards pursuant to an established compliance schedule.	CARB	No Conflict. Construction contractors that would comply with this regulation would be used throughout Project development.

**TABLE 5.7-5
PROJECT CONSISTENCY WITH CLIMATE CHANGE SCOPING PLAN**

Regulation, Actions, and Strategies	Responsible Party(ies)	Proposed Project Consistency Analysis
<p>CARB In-Use On-Road Regulation: CARB’s in-use on- road heavy-duty vehicle regulation (“Truck and Bus Regulation”) applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds.^a</p>	<p>CARB</p>	<p>No Conflict. Construction contractors that would comply with this regulation would be used throughout Project development.</p>
<p>Implement the Short-Lived Climate Pollutant Strategy by 2030:</p> <ul style="list-style-type: none"> • 40-percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. • 50-percent reduction in black carbon emissions below 2013 levels. 	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p>No Conflict. Senate Bill 605 (SB 605) was adopted in 2014 which directs CARB to develop a comprehensive Short-Lived Climate Pollutant (SLCP) strategy. Senate Bill 1383 was later adopted in 2016 to require CARB to set statewide 2030 emission reduction targets of 40 percent for methane and hydrofluorocarbons and 50 percent black carbon emissions below 2013 levels.^b</p> <p>The Project would comply with the CARB SLCP Reduction Strategy which limits the use of hydrofluorocarbons for refrigeration uses.</p>
<p>By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.</p>	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p>No Conflict. Under SB 1383, the California Department of Resources Recycling and Recovery (CalRecycle) is responsible for achieving a 50 percent reduction in the level of statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. In October 2020, CalRecycle released the proposed regulation text for the Short-lived Climate Pollutants (SLCP): Organic Waste Reductions program.”^c</p> <p>The Project would not conflict with AB 341 which requires not less than 75 percent of solid waste generated be source reduced through recycling, composting or diversion. Reduction in solid waste generated by the Project would reduce overall GHG emissions. Compliance with AB 341 would also help achieve the goals of SB 1383.</p>

^a CARB. *Truck and Bus Regulation—On-Road Heavy Duty Diesel Vehicles (In-Use) Regulation.*

^b CARB, *Reducing Short-Lived Climate Pollutants in California.*

^c CalRecycle. *Short-Lived Climate Pollutants (SLCP Organic): Waste Reductions Proposed Methane Emissions Reductions, Proposed Regulation Text. October 2020.*

SCAG 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

A discussion of the Project’s consistency with the policies applicable to individual development projects in the 2020–2045 RTP/SCS is presented in **Table 5.7-6: Project Consistency with SCAG 2020–2045 RTP/SCS**, below. As shown in **Table 5.7-6**, the Project would not conflict with the 2020–2045 RTP/SCS.

**TABLE 5.7-6
PROJECT CONSISTENCY WITH SCAG 2020–2045 RTP/SCS**

Goals and Policies	Consistency Analysis
Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.	No Conflict. Transit is provided by Sun Line Transit Agency (SLTA). The closest bus stop to the Project Site is located approximately 2.6 miles away. Although there are no nearby transit stops to the Project Site, the Project encourages multimodal transportation through use of bicycle paths and sidewalks. Adjacent to the Project Site, there is an existing Class I bicycle path on Jefferson Street between Avenue 38 and Avenue 39, Class II bicycle lanes on Avenue 38 between Dune Palms Road and Madison Street, and Class II bicycle lanes on Avenue 40 between Jefferson Street and Monroe Street. The City’s General Plan proposes a Class I bicycle path on Jefferson Street between Avenue 38 and Varner Road and Class II bicycle lanes on Avenue 40 between Fifties Way and Monroe Street. Given the Project’s proximity to the Shadow Hills Golf Club, many of the adjacent bicycle facilities and pedestrian sidewalks are shared with golf carts. Additionally, the Project will construct sidewalks on all existing streets adjacent to the Project Site including Avenue 38, Madison Street, and Avenue 40.
Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.	No Conflict. While not necessarily applicable on a project-specific basis, the Project would support this goal by improving the viability of alternative forms of transportation through infill development. Moreover, the Project would connect to existing bicycle and pedestrian paths that are also accessible via golf cart.
Goal 4: Increase person and goods movement and travel choices within the transportation system.	No Conflict. While not necessarily applicable on a project-specific basis, the Project would support this goal by improving local access to alternative forms of transportation, with appropriate design considerations to account for future population growth and multimodal choices.
Goal 5: Reduce greenhouse gas emissions and improve air quality.	No Conflict. The location of the Project promotes the use of a variety of transportation options, which includes walking, biking, and golf carts. These would serve to reduce VMT which generates GHG’s.
Goal 6: Support healthy and equitable communities.	No Conflict. As mentioned previously, the Project would connect to existing bicycle and pedestrian paths that are also accessible via golf cart.
Goal 7: Adapt to a changing climate and support an integrated regional development pattern in transportation network.	No Conflict. This policy is directed towards SCAG to support regional development patterns areas. However, the Project would be served by existing bicycle and pedestrian paths and would comply with the California Green Building Standards Code (CALGreen).
Goal 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	No Conflict. This policy is directed towards SCAG to leverage the use of new transportation technologies using data-driven solutions. However, as stated above, the Project is served by existing bicycle and pedestrian paths.

**TABLE 5.7-6
PROJECT CONSISTENCY WITH SCAG 2020–2045 RTP/SCS**

Goals and Policies	Consistency Analysis
<p>Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.</p>	<p>No Conflict. The Project would develop 1,500 homes for retirement age adults that would be served by existing bicycle and pedestrian paths.</p>
<p>Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.</p>	<p>No Conflict. This policy is directed towards SCAG and does not directly apply to the Project.</p>
<p>Guiding Principle 2: Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability and safety, and that preserve the existing transportation system.</p>	<p>No Conflict. This policy is directed towards SCAG in allocating transportation system funding.</p>
<p>Guiding Principle 3: Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities.</p>	<p>No Conflict. This Goal is directed towards SCAG and the City and does not apply it to individual development projects.</p>
<p>Guiding Principle 4: Encourage RTP/SCS investments in strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices.</p>	<p>No Conflict. This policy relates to SCAG goals in supporting investments and strategies to reduce congestion and the use of single occupancy vehicles. However, the Project would support the policy as it is located near existing bicycle and pedestrian paths.</p>
<p>Core Vision Topic 1: Sustainable Development Through our continuing efforts to better align transportation investments and land use decisions, we strive to improve mobility and reduce greenhouse gases by bringing housing, jobs and transit closer together.</p>	<p>No Conflict. The Project would comply with the California Green Building Standards Code (CALGreen), and would incorporate eco-friendly building materials, systems and high-performance building envelopment. Moreover, the Project encourages multimodal transportation through use of bicycle paths and sidewalks.</p>
<p>Core Vision Topic 4: Transit Backbone Expanding the transit network and fostering development in transit-oriented communities is central to the region’s plan for meeting mobility and sustainability goals while continuing to grow the regional economy.</p>	<p>No Conflict. This core vision topic is directed towards SCAG goals for the region and is not directly applicable to individual residential development projects.</p>
<p>Core Vision Topic 5: Complete Streets Creating “complete streets” that are safe and inviting to all roadway users is critical to increasing mobility choices, reducing traffic fatalities and serious injuries and meeting greenhouse gas reduction targets.</p>	<p>No Conflict. This core vision topic is directed toward SCAG and is not specifically applicable to the Project.</p>
<p>Core Vision Topic 6: Goods Movement The efficient movement of goods is critical to a strong economy and improves quality of life in the SCAG region by providing jobs and access to markets through trade. However, increased volumes of goods moving across the transportation system contribute to greater congestion, safety concerns and harmful emissions. It is critical to integrate land use decisions and technological advancements to minimize environmental and health impacts while fostering continued growth in trade and commerce.</p>	<p>No Conflict. This core vision topic is directed toward SCAG and is not specifically applicable to the Project.</p>

**TABLE 5.7-6
PROJECT CONSISTENCY WITH SCAG 2020–2045 RTP/SCS**

Goals and Policies	Consistency Analysis
<i>Sustainable Community Strategy 1: Focus Growth Near Destinations and Mobility Options</i>	
Sustainable Community Strategy 1a: Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations.	No Conflict. The Project encourages multimodal transportation through use of bicycle paths and sidewalks which currently exist within the vicinity of the Project Site.
Sustainable Community Strategy 1b: Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets	No Conflict. This strategy is directed toward SCAG and is not specifically applicable to the Project.
Sustainable Community Strategy 1c: Plan for growth near transit investments and support implementation of first/last mile strategies	No Conflict. This strategy is directed toward SCAG and is not specifically applicable to the Project.
Sustainable Community Strategy 1d: Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses.	No Conflict. This strategy is directed toward SCAG and is not specifically applicable to the Project.
Sustainable Community Strategy 1e: Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods.	No Conflict. This strategy is directed towards SCAG and the City and does not apply to individual development projects.
Sustainable Community Strategy 1f: Encourage design and transportation options that reduce the reliance on number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations).	No Conflict. As mentioned previously, the Project would connect to existing bicycle and pedestrian paths that are also accessible via golf cart. Thus, the Project would reduce VMT and promote alternatives to driving.
<i>Sustainable Community Strategy 2: Promote Diverse Housing Choices</i>	
Sustainable Community Strategy 2a: Preserve and rehabilitate affordable housing and prevent displacement.	No Conflict. Strategy 2a is directed towards SCAG and not does apply to the Project.
Sustainable Community Strategy 2b: Identify funding opportunities for new workforce and affordable housing development.	No Conflict. This strategy is directed towards SCAG in identifying funding opportunities for affordable housing development.
Sustainable Community Strategy 2d: Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions.	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects.
<i>Sustainable Community Strategy 3: Leverage Technology Innovations</i>	
Sustainable Community Strategy 3a: Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking /drop off space.	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects.
Sustainable Community Strategy 3c: Identify ways to incorporate “micro-power grids” in communities, for	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects. Nonetheless, the Project would comply with the California Green Building Standards Code (CALGreen),

**TABLE 5.7-6
PROJECT CONSISTENCY WITH SCAG 2020–2045 RTP/SCS**

Goals and Policies	Consistency Analysis
example solar energy, hydrogen fuel cell power storage and power generation.	and would incorporate eco-friendly building materials, systems, and features wherever feasible, including Energy Star appliances, water saving/low flow fixtures, non-VOC paints/adhesives, drought tolerant planting, and high-performance building envelopment.
Sustainable Community Strategy 4: Support Implementation of Sustainability Policies	
Sustainable Community Strategy 4a: Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions.	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects.
Sustainable Community Strategy 5: Promote a Green Region	
Sustainable Community Strategy 5b: Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration.	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects.
Sustainable Community Strategy 5d: Promote more resource efficient development focus on conservation, recycling and reclamation.	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects. Nonetheless, the Project would comply with the California Green Building Standards Code (CALGreen), and would incorporate eco-friendly building materials, systems and high-performance building envelopment.
Sustainable Community Strategy 5e: Preserve, enhance, and restore regional wildlife connectivity.	No Conflict. This policy is directed towards SCAG and does not directly apply to the Project.
Sustainable Community Strategy 5f: Reduce consumption of resource areas, including agricultural land.	No Conflict. This policy is directed towards SCAG and does not directly apply to the Project.
Sustainable Community Strategy 5g: Identify ways to improve access to public park space.	No Conflict. This strategy is directed towards SCAG and does not apply to individual development projects.

Source: SCAG. Connect SoCal, 2020-2045 RTP/SCS. September 2020.

City of Indio CAP

As discussed above, for proposed projects above the 900 MTCO₂e screening threshold, the City's CAP states that project applicants shall complete the Climate Ready Development Review Checklist (Appendix A of the CAP). For each item on the checklist, the applicant indicates whether the measure is included as part of the project, or if it is not applicable. The checklist is designed to reflect the targets set for the measures presented in in the CAP including statewide reduction goals outlined in AB 32 and SB 32. The Project's consistency with the CAP's Climate Ready Development Review Checklist is shown in **Table 5.7-7: Project Consistency with City of Indio CAP**.

**TABLE 5.7-7
PROJECT CONSISTENCY WITH CITY OF INDIO CAP**

Feature	Applicability
Will the project include bicycle facilities (e.g. bike lanes, parking)?	<p>Yes. Adjacent to the Project site, there are Class I bicycle paths proposed on Jefferson Street between Avenue 39 and Varner Road (west side of roadway), and Class II bicycle lanes planned on Madison Street between Avenue 38 and Avenue 40.</p> <p>The Project would improve the roadway frontage adjacent to the Project site and widen Madison Street to accommodate buffered bicycle lanes on Madison Street between Avenue 38 and Avenue 40. Class II bicycle lanes will be provided along all internal collector streets.</p>
Will the project include sidewalks along all roadways?	<p>Yes. The Project includes both off-site and on-site street improvements and development which would include sidewalks. The Project includes a system of pedestrian paseos in open space areas throughout the community that, in combination with sidewalks on streets within the community will facilitate pedestrian movement and access throughout the community. Moreover, the Project would construct sidewalks along the Project frontage with ADA accessible crosswalks. The Project would not disrupt existing pedestrian facilities, interfere with planned pedestrian facilities, or propose any changes to the pedestrian system that would be inconsistent with pedestrian system policies.</p>
Will the project support bike sharing or rental programs?	<p>No. This project design feature does not apply to the Project.</p>
Will there be transit stop within ¼ mile of the project?	<p>No. Currently, Sun Line Transit operates a variety of bus routes in Indio. Routes 800, 801, 802, and 803 provide school shuttle service to Shadow Hills High School. Each bus operates once on weekday mornings before school starts and once on weekday evenings after school. Bus stops are located directly adjacent to the Project site on the corner of Avenue 38 and Talavera Boulevard, and Avenue 40 and Madison Street. There are no other bus routes that operate within 1 mile of the Project site. The project will provide pedestrian linkages along the Project frontage to existing bus stops by constructing sidewalks along the Project frontages on Avenue 38, Jefferson Street, Madison Street, and Avenue 40 with ADA accessible crosswalks at intersections.</p>
Will the install provide traffic calming elements?	<p>Yes. The Project's Transportation Study (See Appendix K) includes recommendations for reducing traffic impacts which will be included as part of the Project.</p>
Will the project's pedestrian and/or bicycle infrastructure connect to the external network?	<p>Yes. The Project would connect to the existing pedestrian and bicycle infrastructure within the Project vicinity.</p>
If the project provides streets, will the streets meet the City's Complete Streets standards?	<p>Yes. The Project would comply with the City's Complete Street Implementation Plan (Mobily Element Policy (ME-) 1.12) and reconstruct the street frontage adjacent to the Project with improvements consistent with the layer network approach, including 1) pedestrian facilities on Avenue 38, Jefferson Street, Madison Street, and Avenue 40, adjacent to the Project and 2) roadway widening on Madison Street to accommodate bicycle lanes (ME-1.2). Existing bicycle lanes on Avenue 38 and Avenue 40 would be maintained.</p>

**TABLE 5.7-7
PROJECT CONSISTENCY WITH CITY OF INDIO CAP**

Feature	Applicability
	Frontage improvements on local roadways and residential streets internal to the Project Site would be designed using complete street principals. Additionally, the Project does not preclude the repurposing of unneeded roadway pavement to implement road diets for bicycle and pedestrian improvements (ME 1.3).
Will the project include high-density housing? A range of housing types? Affordable housing? Be mixed-use?	Yes. The Project would develop 1,500 age-restricted homes which would expand the range of housing opportunities in the City of Indio.
Will the project provide shared or reduced parking?	No. Parking will be provided in individual garages and on streets.
Will the project be designed to maximize solar orientation?	Yes. The proposed homes would be capable of supporting solar panels.
Will the buildings be designed to incorporate passive solar design?	Yes. The proposed homes would be capable of supporting solar panels.
Will the project include transportation demand management measures?	Yes. The Project's Transportation Study (See Appendix K) includes recommendations for reducing traffic impacts which will be included as part of the Project. To anticipate the expansion of future bus service into the area, the Project will identify locations on Avenue 38, Madison Street, and/or Avenue 40 that could be readily converted to a bus stop. Additionally, the Project will include the construction of bicycle lanes and sidewalks along the Project frontage to close existing gaps.
Will the project provide electric vehicle charging stations?	Yes. The proposed homes would be capable of charging electric vehicles.
Will the project pre-wire for electric vehicle charging stations to be added at a later date?	Yes. The proposed homes would be capable of charging electric vehicles.
Will the project use all electric appliances and HVAC systems?	TBD.
Will the project seek LEED or similar green building certification?	TBD.
Will the project increase the number of trees on site?	Yes. The site is currently vacant and the Project's landscape plan includes the addition of trees.
Will renewable energy systems be installed as part of the project?	TBD.
Will construction waste and debris be diverted from the landfill consistent with City requirements?	Yes. The Project would comply with City requirements for waste diversion.
Will the project collect recycling? Compost?	Yes. The Project would comply with City requirements for recycling.
Will the project use low-water or drought tolerant species for landscaping?	Yes. The Project would utilize water-conserving fixtures such as irrigation control, low-flow faucets and shower heads and any other combination of fixtures that demonstrate an aggregate savings when compared to nonwater-conserving

**TABLE 5.7-7
PROJECT CONSISTENCY WITH CITY OF INDIO CAP**

Feature	Applicability
	fixtures. All landscaping will be drought tolerant and in compliance with the Coachella Valley Water District's landscape ordinance.
Will the project use smart irrigation?	Yes. The Project would utilize water-conserving fixtures such as irrigation control, low-flow faucets and shower heads and any other combination of fixtures that demonstrate an aggregate savings when compared to nonwater-conserving fixtures.
Will rainwater be captured on site?	Yes. The Project design would provide for the capture and storage of storm flow from the 100-year storm event for the Project Site. Runoff would be captured by catch basins placed throughout the Project Site and held by retention basins placed near the approximately 15 drainage areas on the Site.
Will all units have separate water and energy meters? Or be sub-metered?	Yes. All units will have separate water and energy meters.
Will the project be connected to the recycled water system? Does the project use recycled water?	Yes. The Project would use recycled water from the existing CVWD Reclamation Plant No. 7, located immediately north of the Project Site on the corner of Avenue 38 and Madison Street. Recycled water would be used for the irrigation of parkways and open space.
Will the project use low-impact development practices?	Yes. The Project would utilize water-conserving fixtures such as irrigation control, low-flow faucets and shower heads and any other combination of fixtures that demonstrate an aggregate savings when compared to nonwater-conserving fixtures. Moreover, the Project would include high efficiency energy appliances and comply with the latest CALGreen standards.

Source: *City of Indio, Climate Action Plan, <https://www.indio.org/home/showpublisheddocument/892/637874291154670000>. Accessed November 2022.*

Conclusion

The proposed project would allow development of an active adult community for residents aged 55 and above containing up to 1,500 residential units and a community clubhouse on approximately 378 acres of land. As shown in **Table 5.7-5** through **Table 5.7-7**, the Project would not conflict with CARB's Climate Change Scoping Plan, SCAG's 2020–2045 RTP/SCS, or the City's CAP. As such, impacts would be less than significant.

CUMULATIVE IMPACTS

To achieve Statewide goals, CARB is continuing its ongoing process of updating, establishing, and implementing regulations to reduce Statewide GHG emissions. Currently, no applicable quantitative significance thresholds or specific reduction targets exist to assist in determining significance at the project or cumulative level. Additionally, currently no generally accepted methodology exists to determine whether GHG emissions associated with a specific project represent new emissions or existing

and/or displaced emissions. Therefore, consistent with CEQA Guidelines Section 15064(h)(3), the City as a lead agency, has determined that the Project's contribution to cumulative GHG emissions would be less than significant if the Project is consistent with the applicable regulatory plans and polices to reduce GHG emissions. Accordingly, the analysis above took into account the potential for the Project to contribute to the cumulative impact of global climate change. As stated above, the Project would not result in a potentially significant impact because it would not conflict with CARB's Climate Change Scoping Plan, SCAG's 2020–2045 RTP/SCS, or the City's CAP. As such, cumulative impacts would be less than significant.

Related projects would generate both construction and operational GHG emissions during the life of each project. Given that the Project would not have a potentially significant impact to GHG emissions, the Project's contribution to cumulative impacts is not considered a significant impact.

MITIGATION MEASURES

No mitigation measures required.

LEVEL OF SIGNIFICANCE OF MITIGATION

Impacts would be less than significant without mitigation.

5.8 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact local and regional hydrology and water quality conditions. More specifically, this section evaluates impacts associated with the Project that may potentially affect the regional and local water quality, surface water hydrology, groundwater hydrology, environmental degradation, and public health and safety. This section incorporates information from the following studies prepared for the Project Site:

- MSA Consulting Inc., Tentative Tract Map No. 38470 Preliminary Hydrologic Summary (Preliminary Hydrologic Summary), November 4, 2022. See **Appendix I**.
- Leighton and Associates, Inc., Geotechnical/Soils Due Diligence Review, July 19, 2021. See **Appendix H**.
- MSA Consulting Inc., Water Supply Assessment (WSA) and Water Supply Verification (WSV) for the Proposed Desert Retreat, January 2023. See **Appendix N**.

Prior to the preparation of this Draft EIR, an Initial Study (IS) (included in **Appendix A** of this Draft EIR) was prepared using the CEQA Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with biological resources. The following IS screening criteria related to hydrology and water quality do not require additional analysis in this Draft EIR:

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

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

REGULATORY SETTING

Federal

Clean Water Act

The Clean Water Act of 1972 (CWA) was enacted to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters by regulating the discharge of pollutants to waters of the US from point sources for the propagation of fish and wildlife. Section 208 of the CWA and the requirements of the Code of Federal Regulations require local water management plans. Preparation of these water management plans is delegated to individual states by the United States Environmental Protection Agency (USEPA), which is charged with implementing the CWA.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States regulated under this program, including fill for development and mining projects. “Waters of the United States” are defined in US Army Corps of Engineers (USACE) regulations as navigable waters that are navigable in the traditional sense and includes adjacent wetlands and

tributaries to navigable waters of the US and other waters, the degradation or destruction of which could affect interstate or foreign commerce. Proposed activities are regulated through a permit process, reviewed by the USACE, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines and regulations promulgated by the USEPA.

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet its water quality standards. The water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA.

National Pollutant Discharge Elimination System

In 1972, the National Pollutant Discharge Elimination System (NPDES) was established under Section 402 of the CWA to control the discharge of pollutants to waters of the US. It does so by establishing a variety of measures designed to reduce pollutant discharges through a permitting program. The permit contains limits on allowable discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not pollute water quality or is detrimental to public health. Under the CWA, the NPDES program is managed nationally by the USEPA, who authorizes the NPDES permit program to State, tribal, and territorial governments, enabling them to perform many of the permitting, administrative, and enforcement aspects of the NPDES program.

In the State of California, the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) guide the regulation, protection, and administration of water quality. The Project Site and the City are located within the Colorado River Region (Region 7), which administers the permit program for regulating storm water from construction activities for projects greater than one acre in size in the project areas under the State's General Permit approach, since urban development and construction-related activities have the potential to impact the quality and quantity of runoff to proximate receiving waters. These potential construction-related impacts are mitigated by implementing a Stormwater Pollution Prevention Plan (SWPPP), in compliance with the Construction General Permit (State Water Resources Control Board Order No. 2009-0009-DWQ, as amended by Order No. 2012-006-DWQ, NPDES No. CAS000002) under the NPDES. The SWPPP requires construction sites to develop and implement best management practices (BMPs) in order to mitigate potential runoff contamination from construction activities. Some BMPs include implementing storm drain inlet protection, concrete washout bins, secondary containment, and proper material storage at construction sites.

To address post-construction runoff impacts, projects are regulated under the Municipal Separate Storm Sewer System (MS4) within the Whitewater River Watershed, otherwise known as the MS4 Permit (Order No. R7-2013-0011 and NPDES No. CAS617002).

State

California Department of Water Resources

The Department of Water Resources (DWR) is responsible for managing and protecting California's water resources, systems, and infrastructure, including the State Water Project (SWP). Some responsibilities of the DWR include preventing and responding to floods, droughts, and catastrophic events, informing, and educating the public on water issues, developing scientific solutions, restoring habitats, planning for future water needs, climate change impacts, constructing and maintaining facilities, generating power, ensuring public safety, and providing recreational opportunities. The DWR works with other agencies to benefit the State's people and to protect, restore, and enhance the natural and human environments.

Water Boards

California's Water Boards consist of the State Water Resources Control Board (SWRCB) and the RWQCB. The mission of the Water Boards is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use for the benefit of present and future generations. Together they are authorized to implement the federal Clean Water Act in California.

State Water Resources Control Board

The SWRCB was developed in 1967 with the mission to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the Water Board to provide comprehensive protection for California's waters. In addition to allocating water rights, the SWRCB adjudicates water rights disputes, develops Statewide water protection plans, establishes water quality standards, and guides the Regional Water Quality Control Boards located in the major watersheds of the State.

Regional Water Quality Control Board

The Regional Water Quality Control Boards serve as the frontline for State and federal water pollution control efforts. There are nine control boards, each including seven members. Regional boundaries are based on watersheds and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each watershed. Each Regional Board makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions. As stated previously, the Project Site is located in Region 7, the Colorado River Region.

Colorado River Regional Water Quality Control Board

The Project Site is located within the 13-million-acre Colorado River Basin, which is governed by the Colorado River Basin RWQCB, i.e., Region 7. The Colorado River Basin RWQCB has adopted a Basin Plan in accordance with criteria contained in the CWA, Porter-Cologne Act, and other pertinent State and

federal rules and regulations. The intent of the Basin Plan is to provide definitive guidelines and give direction to the scope of Colorado River Basin RWQCB activities that will optimize the beneficial uses of the State waters within the Colorado River Basin by preserving and protecting the quality of these waters. The intended beneficial use of water determines the water quality objectives. For example, the quality requirements for irrigation water are different from drinking water.

The Colorado River Basin RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements for appropriate persons and groups; these can include individuals, communities, or businesses whose waste discharges may affect water quality. These requirements can be either State Waste Discharge Requirements for discharge to land, or federally delegated NPDES permits for discharges to surface water. Discharges are required to meet water quality objectives and, thus, protect beneficial uses.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Edmund G. Brown Jr. Signed a three-bill package known as the Sustainable Groundwater Management Act (SGMA). The legislation allows local agencies to customize groundwater sustainability plans to their regional economic and environmental needs. The three bills that make up SGMA are AB 1739, SB 1319, and SB 1668. The SGMA provides for sustainable management of groundwater basins; enhances local management of groundwater consistent with rights to use or store groundwater; establishes minimum standards for effective, continuous management of groundwater; provides local groundwater agencies with the authority, technical and financial assistance needed to maintain groundwater supplies; avoids or minimizes impacts for land subsidence; improves data collection and understanding of groundwater resources and management; increases groundwater storage and removes impediments to recharge; and empowers local agencies to manage groundwater basins, while minimizing State intervention.

The SGMA required local authorities to form Groundwater Sustainability Agencies (GSAs) by June 30, 2017, to evaluate conditions in their local groundwater basins and adopt locally-based Groundwater Sustainability Plans (GSPs), or Alternative GSPs, tailored to their regional economic and environmental needs by January 1, 2020 for critically over-drafted basins, and January 1, 2022 for the remaining high- and medium-priority basins. CVWD, in addition to the six urban water suppliers in the Coachella Valley (CVWD, Coachella Water Authority, Desert Water Agency, Indio Water Authority, Mission Springs Water District, and Myoma Dunes Mutual Water Company), collaboratively prepared the 2020 Coachella Valley Regional Urban Water Management Plan (UWMP).

Porter-Cologne Act

In 1969, the State Legislature enacted the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) to protect the quality of water. The Porter-Cologne Act grants the Water Boards the authority to implement and enforce water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the State. The goal is to protect and enhance the quality of the waters of the State

by defining an enforcement process that addresses water quality problems in the most fair, efficient, effective, and consistent manner.

The Porter-Cologne Act designates the Board as the State water pollution control agency for purposes of the Federal Water Pollution Control Act and other federal legislation requiring various federal agencies to obtain statements or certificates from State water pollution control agencies before undertaking activities affecting water quality. The Regional Water Quality Control Boards control jurisdictional boundaries delineated by the divisions of major watershed and are primarily responsible for the implementation of State policies. The primary function of the regional boards is to ensure the reasonable protection of beneficial uses and the prevention of nuisance through establishment of appropriate water quality objectives in water quality control plans for all areas in this region. The boards protect the waters of the State from excessive discharges of waste through the establishment of waste discharge requirements which must be adhered to by persons discharging or proposing to discharge waste other than into a community sewer system. They are also directed to obtain coordinated action in the prevention and abatement of water pollution.

Regional and Local

Whitewater River Region Stormwater Management Plan

The Whitewater River Region Stormwater Management Plan (SWMP) describes activities and programs implemented by the permittees to manage urban runoff to comply with the requirements of the NPDES municipal separate storm sewer system (MS4) permit for the Whitewater River Region. The SWMP emphasizes source control measures and strong public education/outreach efforts as being the most effective way to manage urban runoff in the highly arid Coachella Valley region.

The SWMP discusses program management, detection and elimination of illicit connections and discharges, new and re-development programs, private construction activities, permittee facilities and activities, public education and outreach programs, and monitoring programs. The Whitewater River SWMP also emphasizing reporting and responding to any spills, leaks, and/or illegal discharges including: any sewage spill above 1,000 gallons or that could impact water contact recreation, any oil spill that could impact wildlife, any hazardous material spill where residents are evacuated, any spill of reportable quantities of hazardous waste, any other spill or discharge that is reportable to the California Office of Emergency Services (Cal OES).

According to the Whitewater River Region SWMP, each permittee performing construction activities requires applicable project proponents to obtain coverage under the Construction General Permit as part of standard conditions of project approval; proof of coverage must be furnished prior to the issuance of any building or grading permits. Proponents seeking coverage must file all required documentation to the SWRCB, including their site SWPPP via the Stormwater Multiple Application and Report Tracking System (SMARTS). The Construction General Permit specifies minimum BMPs that site operators must implement dependent upon their site's calculated risk. The Permittees specify that erosion and sediment

controls must be implemented on applicable construction sites through their grading and/or Stormwater Ordinances; construction waste controls can be required through standard conditions of approval, stated in project specifications and/or on standard notes that appear on grading plans.

Coachella Valley Water District

CVWD Urban Water Management Plan

The six urban water suppliers in the Coachella Valley, (CVWD, Coachella Water Authority, Desert Water Agency, Indio Water Authority, Mission Springs Water District, and Myoma Dunes Mutual Water Company) collaboratively prepared the 2020 Coachella Valley Regional UWMP, including regional and individual agency content and other necessary elements as set forth in DWR's 2020 UWMP Guidebook. Each agency also prepared a Water Shortage Contingency Plan (WSCP) to describe the actions that could be taken during a water shortage to reduce demands. The 2020 Coachella Valley Regional UWMP and CVWD's WSCP were adopted by the Board of Directors on June 22, 2021 and submitted to DWR on July 1, 2021. The 2020 Regional UWMP was written in compliance with the Urban Water Management Planning Act established in 1983 and most recently amended by Senate Bill x7-7, which requires a 20 percent reduction in per-capita water use by 2020. The 2020 Regional UWMP supports long-term water resources planning and ensures adequate water supplies are available to meet existing and future urban water demands. Major new requirements identified by DWR to be included in the 2020 Regional UWMP include:

- Five Consecutive Dry-Year Water Reliability Assessment
- Drought Risk Assessment.
- Seismic Risk
- Water Shortage Contingency Plan
- Groundwater Supplies Coordination
- Lay Description

CVWD water demand projections contained in the 2020 Regional UWMP take into account the increased growth throughout its service area. According to the 2020 Regional UWMP, CVWD's actual service area urban water demand was 99,842 AF in 2020. Projected urban water demand in the 2020 Regional UWMP for the year 2045 is anticipated to be 148,166 AF.

CVWD Landscape Ordinance

CVWD Landscape Ordinance 3.15.030 requires provisions for new or rehabilitated landscapes including a series of reduction methods.¹ New developments are required to install weather-based irrigation controllers that automatically adjust water allocation. Additional requirements included setbacks of spray emitters from impervious surfaces, as well as use of porous rock and gravel buffers between grass

¹ Coachella Valley Water District (CVWD). District Codes. Ch. 3.15 Landscape and Irrigation System Design Criteria. <https://cwwd.district.codes/CVWDC/3.15.030>. Accessed December 2022.

and curbs to eliminate run-off onto streets. With the exception of turf, all landscaping, including groundcover and shrubbery, must be irrigated with a drip system. Also, the maximum water allowance for landscaped areas through the CVWD service area has been reduced. This new reduction goal requires that developers maximize the use of native and other drought-tolerant landscape materials and minimize use of more water-intensive landscape features, including turf and fountains.

City of Indio General Plan

The City of Indio's (City's) General Plan Conservation Element outlines the following applicable goal and policies related to conservation, development, and sustainable use of the City's water supplies.

- Goal CE-2: Water Conservation.** Sustainable domestic water facilities and water conservation measures to effectively meet current and future demand.
- CE-2.3: New development requirements.** Require new development projects to implement water conservation measures that are equivalent to or exceed CalGreen Tier One or other applicable standards in effect at the time of development.
- CE-2.4: Drought-tolerant landscaping.** Exceed State landscaping water efficiency standards by requiring the use of drought tolerant landscaping, minimizing the use of turf, and encouraging the retrofitting of existing irrigation systems
- CE-2.5: Water-efficient landscaping and appliances.** Encourage the retrofitting of existing water intensive appliances and irrigation systems. Continue to disseminate information about the CVWD and IWA rebate programs.
- CE-2.6: Greywater systems.** Encourage new residential development to be constructed to allow for easy implementation of greywater systems that redirect water from washbasins, showers, and tubs for use in toilet flushing, irrigation, and other non-potable uses.

City of Indio Municipal Code

Chapter 153 of the City's Municipal Code addresses floodplain management and requirements. The purposes of this division of the Municipal Code are to promote public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas through regulations applicable to all publicly and privately owned land within flood prone, mudslide [mudflow] or flood-related erosion areas.² These regulations restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; control filling, grading, dredging, and other development which may increase flood damage;

² Indio Municipal Code (IMC). Title XV. Chapter 153 Floodplain Management.

and, prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas.

Chapter 55 of the City's Municipal Code provides regulations for stormwater management and discharge control. Municipal Code Section 55.26 provides regulations regarding the discharge and transport of pollutants for new development and redevelopment projects.³ Stormwater BMPs include increasing permeable areas through the use of porous materials for driveways and walkways, modifying the grade of the property and the use of swales and other features to divert flow, and maximizing storage through the use of retention structures. The City's Municipal Code Section 55.27 requires compliance with NPDES permits and allows the City to require proof of compliance prior to issuance of City grading, building, or occupancy permits.

ENVIRONMENTAL SETTING

Existing Conditions

Regional Setting

The Desert Retreat Specific Plan Area (Project Site) is located in the northwestern portion of the City of Indio (City) within Riverside County, California. The Project Site is located in the northeastern part of the Coachella Valley, a low valley sandwiched between the Little San Bernardino Mountains to the north, the Santa Rosa Mountains to the south, and the San Jacinto Mountains to the west. The valley is part of the Colorado Desert Geomorphic Province, an area that includes both sides of the lower Colorado River and the Coachella and Imperial Valleys of California. The topography of the Coachella Valley influences the climatic and hydrologic conditions in the region. The various mountain ranges, particularly the San Jacinto Mountain range, captures the precipitation from strong Pacific storms that pass through, and separate the semi-arid environment to the west from the dry, desert regions to the east. Most of the precipitation occurs during the winter months, primarily between November and March. However, high intensity, short duration tropical storms emanating from the south can occur during the summer months of July through September.

The physical geography of the Coachella Valley has resulted in multiple drainage patterns that co-exist with urban development in the cities. Most of the washes, drainage courses, and some of their surrounding floodplains are still undeveloped and can be considered as existing open space and are utilized as water collection channels in a serious storm event. The general course of drainage within the Coachella Valley runs from the northwest to the southeast, ultimately leading to the Salton Sea.

The Coachella Valley, including the Project Site, lies within the boundaries of the Coachella Valley Planning Area of the Colorado River Basin (Region 7). Region 7 covers approximately 13,000,000 acres (20,000 square miles) in the southeastern portion of California and includes all of Imperial County and

³ IMC. Title V. Chapter 55 Stormwater Management and Discharge Control. Section 55.26.

portions of San Bernardino, Riverside, and San Diego Counties.⁴ It is bounded by the Colorado River to the east, Mexico to the south, the Laguna, San Jacinto and San Bernardino Mountains to the west, and the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges to the north.

The City is located in the Whitewater River Watershed and East Salton Sea Watershed. The Project Site is located in 1,920 square miles Whitewater River Watershed (Watershed). The Watershed includes a majority of Riverside County and a small portion of southern San Bernardino County, and consists mainly of sparsely populated mountains, desert, and agricultural lands. The Watershed is bounded on the south by the San Jacinto and Santa Rosa Mountains, on the west by the Santa Ana Watershed, on the east by the Salton Sea, the Hexie and Cottonwood Mountains, and Southern Mojave Watershed, and on the northeast by the Little San Bernardino Mountains and the Southern Mojave Watershed. The highest elevation (upper reaches) of the Watershed occurs in the San Jacinto Mountains at 10,000 feet above mean sea level (amsl), while the lowest elevation of the Watershed occurs at the Salton Sea, at 230 feet below mean sea level.

Drainage

Regional

Drainage in the Coachella Valley, consisting of seasonal precipitation and the snowmelt from the San Bernardino and San Jacinto Mountains, is primarily conveyed through the northwest–southeast trending drainage course, the Whitewater River.⁵ The Whitewater River is typically a channelized desert dry wash, that flows only in periods of intense rain. However, because of diversions and percolation into the basin, the River becomes dry further downstream. A constructed downstream extension of the Whitewater River is the Coachella Valley Stormwater Channel, which is a drainage course for irrigation return flows, treated community wastewater, and stormwater runoff.⁶

The Coachella Valley Water District (CVWD) operates and maintains the stormwater facilities throughout the Coachella Valley. These facilities include the Whitewater River Stormwater Channel, Coachella Valley Stormwater Channel, West and East side dike systems, fifteen Cove Community channels from Rancho Mirage to La Quinta, Cove Community basins, East Valley stormwater channels in the agricultural areas, and detention channels that drain water impounded behind the dikes.⁷

4 California Regional Water Quality Control Board (RWQCB) - Colorado River Basin. *Water Quality Control Plan for the Colorado River Basin Region*. Amended 2019. Page 1-7. https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/2020/rb7bp_e2019.pdf. Accessed December 2022.

5 City of Indio. *Master Drainage Plan Update*. November 2019. <https://www.indio.org/home/showpublisheddocument/2735/638006890667970000>. Accessed December 2022.

6 California State Water Quality Control Board (RWQCB) - Colorado River Basin. *Water Quality Control Plan for the Colorado River Basin Region*. Amended 2019. https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/2020/rb7bp_e2019.pdf. Accessed December 2022.

7 Coachella Valley Water District (CVWD). "Stormwater Protection & Flood Control." <http://www.cvwd.org/165/Stormwater-Protection-Flood-Control>. Accessed December 2022.

Local

As previously stated, the Whitewater River is the primary drainage course in the Coachella Valley, which includes the City of Indio. The Whitewater River is located approximately 1.55 miles southeast of the Project Site. The Whitewater River has an intricate drainage network of several intermittent, north-flowing streams that drain the Santa Rosa Mountains and empty into the Whitewater River. Water flows northwest to southeast through the City and eventually empties into the Salton Sea. In the urbanized parts of the City, streams have been modified and are now mostly confined to open channels, culverts, and storm drains; however, for most of their length, they remain natural and unmodified. Local drainage facilities in the City generally convey runoff from local streets and lots to the regional facilities. The local storm drain system consists of gutters, engineered storm drains, and channels.

Coachella Canal

The Coachella Canal supplies Colorado River water to the City. The Coachella Canal, which was constructed as a branch of the All-American Canal, flows in a northwesterly direction through the City, then traverses south approximately parallel with Madison Street to its termination point at the Lake Cahuilla reservoir. The Coachella Canal water distribution system was constructed to deliver Colorado River water for agricultural uses in the East Valley. Currently, Canal water supplies agricultural, golf course irrigation, fish farming operations, duck clubs, and recreational lake uses.⁸ The Coachella Canal is located adjacent to the southeast corner of the Project Site, running west along Avenue 40 and continuing south into the Shadow Hills Development.

Various facilities have been constructed to capture natural flows and storm runoffs to recharge ground water basins in the Coachella Valley. Colorado River water transported by the Colorado River Aqueduct and the Coachella Canal are used for recharge and replenish efforts regionally. With the recent statewide drought and implementing storm water and water quality management policies, ground water recharge is at the forefront of flood control infrastructure and water quality management.

Stormwater

Regional

Stormwater is defined by the United States Environmental Protection Agency (USEPA) as the runoff generated when precipitation from rain and snowmelt events flows over land or impervious surfaces without percolating into the ground. Stormwater is often considered a nuisance because it mobilizes pollutants such as motor oil and trash. In most cases, stormwater flows directly into water bodies through sewer systems, contributing a major source of pollution to rivers, lakes, and the ocean. Stormwater discharges in California are regulated through National Pollutant Discharge Elimination System (NPDES)

8 CVWD. 2020 Regional UWMP (2019). <https://www.cvwd.org/DocumentCenter/View/5482/Coachella-Valley-RUWMP>. Accessed December 2022.

permits, further discussed below. However, stormwater may also act as a resource and recharge to groundwater when properly managed.⁹

The Coachella Valley Planning Area is located in the East Salton Sea Watershed and the Whitewater River Watershed, under the jurisdiction of the California Regional Water Quality Control Board (RWQCB), Colorado River Basin Region (Region 7) of the State Water Resources Control Board (SWRCB). Region 7 covers approximately 13,000,000 acres (20,000 square miles) in the southeastern portion of California. A watershed is a geographic area that drains into a specified point on a watercourse, usually a confluence of streams or rivers. Watersheds (also referred to as drainage areas, catchments, or river basins) are usually bordered and separated from other watersheds by mountain ridges or other naturally elevated areas. The Whitewater River Watershed boundaries to the north and northwest are the mountain ranges of the Colorado Desert, the San Bernardino Mountains, Little San Bernardino Mountains, and Indio Hills. The Watershed boundaries to the east and south are met by the Mecca Hills, Orocochia Mountains, the Salton Sea, and Santa Rosa Mountains. The western boundary is generally defined by the San Jacinto Mountains. As previously stated, the surface drainage within this watershed drains to the Salton Sea.

Local

CVWD is the local jurisdiction and delivers irrigation and domestic (drinking) water, collects, and recycles wastewater, provides regional stormwater protection, replenishes the groundwater basin, and promotes water conservation. It operates and maintains approximately 135 miles of multiple stormwater protection facilities in the region. Additionally, CVWD is involved with regional stormwater and flood protection, including planning, maintenance, and construction of drainage improvements for regional flood control facilities, as well as watershed and watercourse protection related to these facilities.

The main regional flood control facility in the City of Indio is the Coachella Valley Stormwater Channel. This channel is the main drainage course for the entire Coachella Valley region from north of Palm Springs to the Salton Sea.¹⁰ This channel meanders through the City in a west to east direction, partially along the Interstate 10 Freeway, and is maintained by CVWD. Additional existing regional drainage facilities include the East Side Dike along the foothills of north Indio and Waste Way 3. The East Side Dike was constructed to protect All American Canal (Coachella Canal) from debris and flooding.¹¹ It also protected this area from storm runoffs of the San Bernardino Mountains. That said, the streets within this area are less prone to flooding. The East Side Dike is located approximately 0.35 miles north of the Project Site. Additionally, the North Indio Regional Flood Control Project is currently under construction adjacent to the Project Site along Jefferson Street. The North Indio Regional Flood Control Project is a 2.5-mile-long series of concrete flood control channels. The channels will connect with existing channels starting in

9 California State Water Resources Control Board. "Storm Water Program." https://www.waterboards.ca.gov/water_issues/programs/stormwater/. Accessed December 2022.

10 City of Indio. *Master Drainage Plan Update*. November 2019. <https://www.indio.org/home/showpublisheddocument/2735/638006890667970000>. Accessed December 2022.

11 City of Indio. *Master Drainage Plan Update*. November 2019. <https://www.indio.org/home/showpublisheddocument/2735/638006890667970000>. Accessed December 2022.

Sun City Palm Desert and take flows from there through North Indio to channels in Sun City Shadow Hills and into the Coachella Valley Stormwater Channel. This project would provide additional flood control protection for the Project Site.

Groundwater

Regional

Groundwater is the primary source of municipal water supply in the Coachella Valley, underlain by the Coachella Valley groundwater basin. The California Department of Water Resources (DWR) and the United States Geological Survey (USGS) established subbasins and associated subareas within the Coachella Valley. The four subbasins include the Mission Creek Subbasin, Desert Hot Springs Subbasin, Garnet Hill Subarea, San Geronio Pass Subbasin, and the Whitewater River Subbasin (also referred to as the Indio Subbasin).¹² The Whitewater River Subbasin extends from Whitewater in the northwest to the Salton Sea in the southeast. The Whitewater River Subbasin is divided for management into the West Valley and the East Valley. The Project is located in the East Valley subarea within the Whitewater River Subbasin, along with the cities of Coachella, La Quinta and the communities of Bermuda Dunes, Mecca, and Thermal.

The Coachella Valley is geographically separated into a western and eastern portion. The cities of Palm Springs, Cathedral City, Rancho Mirage, Indian Wells, and Palm Desert lie in the western portion, and the unincorporated communities of Thermal, Oasis, Mecca, and North Shore are located in the eastern portion. Soils in the western Coachella Valley primarily consist of sands and gravel, which allow surface water to percolate to the groundwater aquifer. Soils in the eastern Coachella Valley, however, largely consist of impervious clay layers, which do not allow surface water to reach the groundwater aquifers as easily. The only outlets for groundwater in the Coachella Valley are through subsurface outflow under the Salton Sea or through collection in drains and transport to the Salton Sea via the Coachella Valley Stormwater Channel (CVSC).

CVWD obtains groundwater from both Whitewater River and Mission Creek Subbasins, which is shared between CVWD, Desert Water Agency (DWA), Myoma Dunes Water Company, the cities of Indio and Coachella, and numerous private groundwater producers. Both CVWD and DWA have legal authority under the 1992 CVWD-DWA Water Management Agreement to manage the groundwater basins within their respective service areas. Each agency may levy an assessment on groundwater pumping to finance the acquisition of imported and recycled water supplies and to recharge the groundwater basins, in accordance with legal requirements.

Groundwater Supplies

Groundwater is the main source of water supply in the Coachella Valley and the City, and since the demand for groundwater is higher than the natural rate of replenishment, water is imported to recharge

12 CVWD. 2020 *Regional UWMP (2019)*. <https://www.cvwd.org/DocumentCenter/View/5482/Coachella-Valley-RUWMP>. Accessed December 2022.

the aquifer in order to reduce groundwater overdraft. DWR Bulletin 108 (1964) and Bulletin 118 (2003) are the most current bulletins published by DWR that specifically investigate the aquifer in the Coachella Valley. In Bulletin 108, DWR noted that the amount of usable supply in the over-drafted aquifer was decreasing, while Bulletin 118 stated that overdraft remains a “primary challenge” in the aquifer. Outflows from the basin consist of pumping, flows to agricultural drainage system, evapotranspiration by native vegetation and subsurface outflow to the Salton Sea.

Historical overdraft in the Coachella Valley had caused groundwater levels to decline in many portions of the East Valley from La Quinta to the Salton Sea, which raised concerns about water quality degradation and land subsidence. In 2009, overdraft for the Coachella Valley was estimated to be 74,812 AFY. CVWD operates and maintains groundwater recharge facilities at three locations in the Coachella Valley: the Whitewater River Groundwater Replenishment Facility (WWR-GRF), the Thomas E. Levy GRF (TEL-GRF), and the Palm Desert GRF (PD-GRF). Desert Water Agency (DWA) shares in the operation and maintenance cost at the WWR-GRF.¹³ Since 2009, water storage in the subbasin has increased by more than 800,000 acre-feet.

The City is generally served by the Whitewater River Subbasin. Other sources of domestic water supply include surface run-off from the local mountains and imported water from the Colorado River aqueduct and the Coachella Canal.

Groundwater Quality

As stated previously, groundwater is the primary source of domestic water supply for residents and businesses within CVWD’s service area. Water quality and the character of groundwater are determined by a number of factors including mineral content of sediments, recharge and drainage patterns, stormwater infiltration, historic land use practices, and casing screening intervals and depths of wells sampled.

The State Water Resources Control Board Division of Drinking Water (DDW) and the USEPA require routine and comprehensive monitoring of drinking water supply, and as required by the California Safe Drinking Water Act. In accordance with the Safe Drinking Water Act, CVWD employees routinely monitor the public water systems and collect drinking water samples that are tested at CVWD’s State-certified laboratory to ensure that domestic water meets State and federal standards. Every year, CVWD is required to analyze a select number of these samples for more than 100 regulated and unregulated substances.¹⁴

13 CVWD. *2020 Regional UWMP (2019)*. <https://www.cvwd.org/DocumentCenter/View/5482/Coachella-Valley-RUWMP>. Accessed December 2022.

14 CVWD. *2021-2022 Annual Review and Water Quality Reports*. <http://www.cvwd.org/ArchiveCenter/ViewFile/Item/984>. Accessed December 2022.

Surface Water Quality

Regional

Surface water supplies come from several local rivers and streams including the Whitewater River, Snow Creek, Falls Creek, and Chino Creek, as well as a number of smaller creeks and washes.

The Project Site is located in the Colorado River Region (Region 7), where the approved Colorado River Basin Water Quality Control Plan (Basin Plan) identifies the beneficial water uses, describes the water quality which must be maintained to support such uses, and describes the programs, projects, and other actions necessary to achieve the standards and protect water quality. The most recent regional Basin Plan was amended in January 2019.¹⁵

Regional drainage of this area is conveyed by the Whitewater River, which flows northwest to southeast and passes approximately 1.55 miles southeast of the Project Site. Due to the natural topography of the region, the Project would indirectly discharge into these receiving waters. The beneficial uses of the downstream receiving waters (Whitewater River, Coachella Valley Storm Water Channel (CVSC), and Salton Sea) of the Project include but are not limited to agriculture supply, water-contact recreation, and warm freshwater habitat.

The regional Basin Plan establishes water quality standards for surface waters within the Colorado River Region, which include designated beneficial uses of those water bodies and the levels of water quality that must be met and maintained to protect those uses. Water bodies where the assessed water quality does not meet the standards to support beneficial uses are regionally listed pursuant to Section 303(d) of the CWA. The most current 2018 Integrated Report (Clean Water Act Section 303(d) List/305(b)) indicates that portions of the CVSC are impaired by Dichlorodiphenyltrichloroethane (DDT), Dieldrin, Indicator Bacteria, Polychlorinated Biphenyls (PCBs), Nitrogen (ammonia), Toxaphene, Disulfoton, Dissolved Oxygen and Toxicity.¹⁶ The sources of all pollutants causing impairment to the CVSC are unknown, and many of these are linked to substances which are now banned, such as DDT, Dieldrin, PCBs, and Toxaphene.

The Porter-Cologne Act is the principal law governing water quality regulation for surface waters in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. Presently, in the State of California, the SWRCB and nine RWQCBs administer the regulation and protection of water quality pursuant to NPDES. The Colorado River Basin Regional Water Quality Control Board (Colorado River Basin RWQCB) is charged by the Porter-Cologne Water Quality Control Act, discussed further below, with the protection of water quality for waters within the region. The Colorado

15 California Regional Water Quality Control Board (RWQCB) - Colorado River Basin. *Water Quality Control Plan for the Colorado River Basin Region*. Amended 2019. https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/2020/rb7bp_e2019.pdf. Accessed December 2022.

16 Colorado River Basin RWQCB. *Integrated Report - Final Staff Report (2019)*. https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/tmdl/2018/ir_staff_rept_final-fixed.pdf. Accessed December 2022.

River Basin RWQCB is also responsible for implementing provisions and pollution control requirements that the federal CWA specifies for surface waters of the United States via the Basin Plan.

Project Site

Topographically, the Project Site generally slopes in a southeasterly direction. Elevations on the Project Site range from approximately 50 feet above mean sea level (msl) near the northwestern corner to a low point elevation of approximately 30 feet (msl) near the southeast corner of the property. Based on surface topography, drainage across the Project Site generally travels from the northwestern corner of the site towards the southeastern corner at Avenue 40 and Madison Street via sheet flow, following the natural drainage course. The runoff drains into the local storm drain system along Avenue 40 and Madison Street, respectively bordering the southern and eastern boundaries of the Project Site.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map Number 06065C1620G, the southwest portion of the Project Site is located in Zone X - "0.2 pct Annual Chance Flood Hazard," while the northeast portion of the site is located in Zone A - "Without Base Flood Elevation."¹⁷ Portions of the site lie within a 100- and 500-year flood zone. Per the FEMA FIRM Map, the Project Site is located in Zone X, which includes areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood. According to the same map, the northeast portion of the Project Site is designated as a Zone A, which includes areas with a 1 percent annual change of flooding.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine whether a project would have a significant effect on the environment (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant impact to hydrology and water quality, if it would:

- Threshold 5.8-1:** Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Threshold 5.8-2:** Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Threshold 5.8-3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would:
 - i) Result in substantial erosion or siltation on- or off-site;
 - ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

¹⁷ MSA Consulting Inc. *Tentative Tract Map NO. 38470 Preliminary Hydrologic Summary*. November 2022. See Appendix I.

- iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
- iv) Impede or redirect flood flows.

Threshold 5.8-4: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Methodology

Project impacts to hydrology and water quality are evaluated based on the conformance of the Project with applicable local, regional, State, and federal standards; the proposed land uses and Project design; changes in pre- and post-Project stormwater flows; and the proposed BMPs for control of surface runoff and reduction of pollutants in stormwater runoff.

A Preliminary Hydrologic Summary was prepared for the Project. Storm runoff volumes for the 100-year event were obtained utilizing the Synthetic Unit Hydrograph Shortcut Method, as described in the Riverside County Flood Control (RCFC) and Water Conservation District (WCD) Hydrology Manual. Water quality impacts are evaluated based on proposed stormwater filtration techniques and requirements under the NPDES and the MS4. Impacts to groundwater recharge were evaluated using information contained in the 2020 RUWMP and retention facilities proposed as part of the Project.

Project Impacts

Threshold 5.8-1: Would the project result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project is consistent with the General Plan and as required by the City's General Plan Update EIR, the project would be required to comply with GPU policies, applicable federal and state laws and regulations concerning the protection of water quality, including the federal Clean Water Act, and the Municipal Code. The NPDES General Construction permit requires preparation and implementation of a SWPPP and WQMP, which must include erosion and sediment control BMPs that would meet or exceed measures required by the NPDES General Permit, as well as BMPs that control hydrocarbons, trash and debris, and other potential construction-related pollutants.¹⁸ Chapter 55 of the Municipal Code also provides regulations for stormwater management and discharge control, including proof of compliance with the NPDES permits prior to the issuance of grading, development, or occupancy permits.¹⁹

The proposed drainage plan for the Project would convey surface water flows from the northern portion of the site to the southern portion. Because the site is relatively level, the grading design for the majority of the site includes only minor changes from existing conditions with the exception of an elevated

¹⁸ City of Indio. *City of Indio General Plan Update EIR*. "Chapter 4.9, Hydrology and Water Quality." Page 4.9-18.

¹⁹ IMC. Title V. Chapter 55 Stormwater Management and Discharge Control Section. 55.26 and Section 55.27.

Clubhouse and surrounding areas near the center of the project. Soil from construction of the nearby CVWD North Indio Regional Flood Control Project deposited in a stockpile in the center of the site has been incorporated into the conceptual plan to elevate the Clubhouse and adjacent areas.

The 100-year storm water runoff volume in the new developed condition created by impervious surfaces (roofs, pavement) would be retained on site. The surface drainage would generally flow southeast across the Project Site via Project roadways and managed using retention facilities within open space paseos. Catch basins would intercept and convey storm flows through storm drain piping to retention basins. Retention facilities would also be utilized throughout the Project Site in order to collect on-site runoff. The Project design would prevent violations to water quality standards and waste discharge requirements by implementing adequate stormwater management facilities at each stage of development and operation, which are designed to contain Project-related runoff and prevent discharges into any receiving waters. The Project would also be required to obtain the appropriate permit approvals that ensure compliance with NPDES, MS4, and City retention ordinance regulations applicable during construction and operation.

Construction

Prior to the start of construction, a SWPPP designed to reduce potential adverse impacts to surface water quality during the period of construction would be developed for implementation as required by the State's most current Construction General Permit (CGP), Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ. The SWPPP will identify the limits of disturbance during each phase of construction with specific locations where activities would require implementation of stormwater BMPs. Stormwater BMPs will include a schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent, eliminate, or reduce the pollution of waters of the receiving waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff spillage or leaks. Consistent with the CGP, SWPPP implementation will include good site management (housekeeping), non-stormwater management, erosion control, sediment controls, run-on and runoff controls, along with inspection, maintenance, and repair measures. Other relevant requirements of the SWPPP include proper waste management, proper material handling, and storage within the allowable construction limits. As construction progresses, any on-site proposed storm drain-inlets that become operational would require temporary protection to prevent sediment or pollutants from entering the on-site storm drain system.

During construction, the Project would also be required to comply with the South Coast Air Quality Management District's (SCAQMD) Rule 403 and 403.1, which requires the Project Applicant to prepare and implement a Fugitive Dust (PM10) Control Plan. Implementation of the Fugitive Dust Control Plan primarily pertains to air quality, but also supports water quality protection through the requirement of soil stabilization measures to prevent sediment erosion and track-out. The concurrent implementation of the required SWPPP and Dust Control Plan would prevent potential adverse construction-related impacts to water quality at the Project Site and its surroundings. Impacts would be less than significant.

Operation

The Project would include homes in the majority of the site, with the Clubhouse located in the center, and small to medium lakes clustered near the community recreation areas.

The proposed drainage pattern would remain generally consistent with the existing drainage pattern primarily draining from the north to the south. Surface drainage would generally flow southeast across the Project Site via streets and managed using retention facilities within open space areas. Project grading is designed to protect the physical improvements from a 100-year storm, as required by Indio Municipal Code (IMC) Title XV, Chapter 153 (Floodplain Management). Per the IMC, special flood hazard areas (SFHAs) are required to follow standards for construction including anchoring requirements, using flood resistant building materials, and specifically, construction within Zone A, such as the Project, will be elevated to or above the identified base flood elevation.^{20,21} Stormwater runoff and volume calculation, retention location and method of storage was determined using estimates of infiltration and evaporation of rainfall. As a result, runoff will be collected, conveyed, and retained within the Project Site, with retention facilities constructed and sized to retain the worst-case flood volume from a 100-year storm event. Project runoff retained on the site would be percolated on-site, contributing to groundwater recharge. Additionally, the City's flood control projects, East Side Dike located to the north of the Project Site and the North Indio Regional Flood Control Project to the west, would redirect runoff away from the Project Site and further reduce flooding impacts.

In addition, the Project will also comply with IMC Title V, Chapter 55 (Stormwater Management and Discharge Control). Per IMC Chapter 55, the Project will be required to comply with the applicable NPDES regulations, prohibited discharges, and retention requirements.²² A Water Quality Management Plan (WQMP) that complies with the most current standards of the Whitewater River Region Water Quality Management Plan for Urban Runoff and the Whitewater River Watershed MS4 Permit (Order No. R7-2013-0011) will be prepared and implemented. The WQMP will apply to the entire Project Site with site design and source control measures, including a required operation and maintenance program designed to address post-construction runoff quantity and quality.

The Project may have the potential to generate small amounts of pathogens generally associated with various human activities, but pathogens are also present in natural environments. Types and concentrations of pollutants typically found in urban runoff from residential development tend to be less adverse than other development projects, including restaurants, automotive repair shops, commercial/industrial development, and parking lots. To address the Project's pollutants of concern, the Project would incorporate site design measures that include infiltration BMPs, such as catch basins and retention basins. As a result, any runoff containing these types of pollutants will not leave the Project

20 IMC. Title XV. Chapter 153. Section 153.13.

21 FEMA SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30.

22 IMC. Title V. Chapter 55. Section 55.26.

Site and will not enter any downstream stormwater conveyance, including streams. Infiltration BMPs have an adequate pollutant removal effectiveness (medium to high) to address the potential pollutants of concern.

The Project will follow State, regional, and local regulations regarding on-site stormwater retention, so that surface waters and the groundwater aquifer are not contaminated with Project-related pollutants. With the enforcement of the above regulations, existing flood controls (East Side Dike and North Indio Regional Flood Control Project), and grading and drainage plans for the Project Site, the Project would not violate any water quality standards or waste discharge requirements or degrade surface or groundwater quality during Project construction or during the life of the Project. Impacts would be less than significant.

Threshold 5.8-2: Would the project result in substantially decreased groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Development of the Project Site would introduce impervious surfaces including, concrete sidewalks, buildings, roadways, etc. Therefore, water would not percolate at the same rate as it has in its vacant state. Percolation of water into the groundwater aquifer would occur during Project operation when stormwater collects in the various proposed on-site retention facilities. Therefore, the Project will not interfere with groundwater recharge efforts, the vast majority of which occur at groundwater replenishment facilities constructed and operated by CVWD, as described below.

The 2020 Regional UWMP serves as a planning tool that documents actions in support of long-term water resources planning and ensures adequate water supplies are available to meet the existing and future urban water demands. Artificial replenishment, or recharge, is recognized by the water districts as one of the most effective methods available for preserving local groundwater supplies, reversing aquifer overdraft and meeting demand by domestic consumers. According to the CVWD, since 1973, approximately 3.8-million-acre feet of water has been recharged at WWR-GRF.²³ Individual development projects can contribute to groundwater replenishment by retaining and infiltrating storm water runoff on-site. See Section 5.16-1: Utilities - Water for more information on the water supply.

A WSA was prepared for the Project Site to determine if the water demand during operation of the Project would be accommodated without causing substantial decreases in groundwater supplies.²⁴ The total projected water demand for the Project is 1,096.59 AFY consisting of 463.28 AFY of outdoor recycled water and 633.31 AFY of potable water, or 2.9 acre-feet per acre. The available supply and water demand for CVWD's service area was analyzed in the water supply conditions of the 2020 Regional UWMP to assess

23 California Regional Water Quality Control Board (RWQCB) - Colorado River Basin. *Water Quality Control Plan for the Colorado River Basin Region*. Amended 2019. https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/docs/2020/rb7bp_e2019.pdf. Accessed December 2022.

24 MSA Consulting Inc. *Water Supply Assessment (WSA) and Water Supply Verification for the Proposed Desert Retreat*. January 2023. See Appendix N.

5.8 Hydrology and Water Quality

the region's ability to satisfy current and future urban water demands, including those of the Project, under three scenarios: a normal water year, a single dry year, and multiple dry years. According to the 2020 Regional UWMP, the urban water demands in the CVWD service area (retail supply totals) are estimated to grow from 137,061 AFY in 2025 to 164,966 AFY in 2045. Therefore, the estimated Project demands of 1,220.53 AFY represent approximately 0.89 percent of the total water supply number (137,061 AFY) for 2025 and would represent 0.74 percent of the total water supply number (164,966 AFY) for 2045.

Although the CVWD has a sufficient amount of water to serve the Project, the City and CVWD require implementation of water conserving and water efficient technologies, especially for new development. The City's General Plan includes water conservation goals and policies in order to ensure that there is a sufficient supply of water to meet current and future needs. Specifically, the Project would be consistent with Policy CE-2.3 and Policy CE-2.5 through the implementation of water conservation measures such as low flow toilets and low gallon per minute (GPM) plumbing fixtures, tankless water features, and timed irrigation systems and rain sensors. The Project would also utilize "xeriscape" planting principles and establish a palette of drought-tolerant trees, shrubs and plants that require little or no irrigation, consistent with Policy CE-2.4. Turf within the Project Site would also be restricted to active outdoor recreation areas only. In addition to these water conservation measures, the project will construct a private recycled water system to irrigate common area landscaping, including street parkways and open space areas to reduce the project's reliance on the CVWD Domestic Water System.

Additionally, the IMC Section 51A.10 includes the adopted CVWD's Model Water Efficient Landscape Ordinance (MWELo), which establishes landscape and irrigation system design criteria to ensure sustainable landscape design.²⁵ This requires that new landscape plans be designed to incorporate more native and locally compatible drought tolerant planting materials and efficient irrigation systems.

As discussed above, CVWD's long-term water management planning ensures that adequate water supplies are available to meet existing and future water needs within its service area. Furthermore, the Project would be consistent with State and local requirements for water conservation. In addition, the Project is consistent with the City's General Plan and as the Project will comply with applicable state and local regulations that concern groundwater recharge, including Chapter 55 of the Municipal Code, GPU policies and regulations.²⁶ The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Impacts would be less than significant.

25 IMC. Title V. Chapter 51A. Section 51A.10.

26 City of Indio. *City of Indio General Plan Update EIR*. "Chapter 4.9, Hydrology and Water Quality." <https://www.indio.org/departments/community-development-department/general-plan-2040/environmental-impact-report>. Accessed December 2022.

- Threshold 5.8-3:** **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 through the addition of impervious surfaces, in a manner which would:**
- i. **Result in substantial erosion or siltation on- or off-site?**

Construction

During Project construction, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate.

The development of the Project would require the construction of on-site stormwater facilities designed in accordance with the Municipal Separate Storm Sewer System (MS4) within the Whitewater River Watershed (Order No. R7-2013-0011 and NPDES No. CAS617002). Project improvement Plans would include the review and approval of a Final WQMP. The source control, site design, and treatment control BMPs required for the Project would ensure that the proximate receiving waters (Whitewater River and Coachella Valley Stormwater Channel), are not adversely impacted by Project-related erosion.

As discussed above, the Construction General Permit requires preparation of a SWPPP. The SWPPP would detail erosion control and sediment control BMPs to be implemented during Project construction to minimize erosion and retain sediment on site. With compliance with the requirements of the Construction General Permit and with implementation of the construction BMPs, construction impacts related to on-site, off-site, or downstream erosion or siltation would be less than significant.

Operation

The Project would introduce impervious surfaces including, concrete sidewalks, buildings, roadways, etc., therefore, water will not percolate at the same rate as it does in its vacant state. Project operation would control potential erosion or siltation on- or off-site by adhering to the established water quality and stormwater regulations under the regulatory framework of the NPDES under the Clean Water Act over the life of the Project.

The Project would also include hardscape and landscape areas. These areas would mitigate potential erosion created by the Project Site by stabilizing the surface with grass, turf, decomposed granite, trees and shrubs. The development of the proposed buildings, as well as the paved and concrete surfaces, would also decrease the amount of exposed soil located on-site; therefore, decreasing the exposed soil that may cause fugitive dust. The existing drainage pattern of the Project Site would be altered in order to collect runoff from the new impervious surfaces created by the Project. The surface drainage would generally flow southeast across the Project Site via Project roadways and managed using retention facilities within open space paseos. Catch basins would intercept and convey storm flows through storm drains to retention basins.

With the implementation of the SWPPP, BMPs, and WQMP, the Project is not anticipated to result in substantial on- and off-site erosion or siltation. Impacts would be less than significant.

- ii. **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

Construction

As discussed above, Project construction will comply with the requirements of the Construction General Permit and would include the preparation and implementation of a SWPPP. The SWPPP will include construction BMPs to control and direct on-site surface runoff as well as include detention facilities, if required, to ensure that stormwater runoff from the construction site does not exceed the capacity of the stormwater drainage systems. With implementation of construction BMPs such as containing non-storm water runoff at the Project Site, and proper concrete washout facilities to minimize the discharge of pollutants in stormwater runoff, construction impacts related to a substantial increase in the rate or amount of surface runoff, flow, and volume that would result in flooding would be less than significant, and no mitigation is required.

Operation

As discussed previously, the Project would increase impervious surface areas, which would increase stormwater runoff compared to existing conditions. Operation of the Project would generally conform to existing on-site drainage patterns. The proposed drainage system would include a stormwater collection and conveyance system designed to collect and pre-treat stormwater in accordance with applicable LID standards in an underground storage/infiltration facility.

With the implementation of the BMPs and detention features, the Project would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding. Also, the site design features and on-site detention facilities would ensure that stormwater runoff does not exceed the capacity of the City's storm drain system. As the runoff from the Project Site would be collected by existing drainage facilities, the proposed Project would not result in or contribute to flooding. For these reasons, impacts related to increase in runoff resulting in flooding would be less than significant.

- iii. **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

The Project Site, in its current condition, is undeveloped and covered in sandy soils that are pervious and allow stormwater to percolate on site. The vegetative cover on the Project Site slows the rate of water that may sheet flow during a rain event.

Development in the City, according to the City's General Plan, will increase runoff by creating large areas of impervious surfaces. This increase of runoff can attribute to increased runoff downstream. The Project

5.8 Hydrology and Water Quality

would enable the development of residential and open space land uses. Project implementation would increase the amount of surface runoff due to the increased impervious area; however, retention facilities throughout the Project Site are designed to have sufficient storage to retain the flood volume from a 100-year storm event, thus meeting the hydrologic requirement established by the City.

According to the Preliminary Hydrologic Summary for the Project, approximately 52.84-acre feet of storage would be required in the form of retention basins as well as the proposed manmade lakes throughout the Project Site.^{27,28} This form of BMP would contain the runoff from the Project Site to the retention basins which would be filtered and treated before discarding into the drainage facilities within the vicinity of the Project Site. The estimated design capture volumes for water quality purposes are shown in **Table 5.8-1: Project Stormwater Storage Volumes**, below.

Surface runoff would generally follow the existing drainage pattern on the site, flowing from north to south, draining from the high points on the Project Site south to the on-site retention facilities.

TABLE 5.8-1 PROJECT STORMWATER STORAGE VOLUMES			
Drainage Area	Flood Volume (acre feet)	Basin Storage (acre feet)	Lake Storage (acre feet)
DA - A	3.36	3.82	0.44
DA - B	3.14	4.04	N/A
DA - C	2.94	2.49	0.74
DA - D	1.75	2.41	N/A
DA - E	1.73	2.36	N/A
DA - F	4.23	2.55	2.61
DA - G	4.88	4.15	1.28
DA - H	3.89	4.15	N/A
DA - I	1.98	5.93	N/A
DA - J	2.6	3.13	N/A
DA - K	2.17	2.63	N/A
DA - L	0.46	0.56	N/A
DA - M	1.23	1.44	N/A
DA - N	1.52	1.91	N/A
DA - O	4.64	6.2	N/A
Total	40.52	47.77	5.07
Total On-Site Storage		52.84 acre-feet	

27 MSA Consulting Inc. *Tentative Tract Map No. 38470 Preliminary Hydrologic Summary (Preliminary Hydrologic Summary)*. November 4, 2022. See **Appendix N**.

28 Retention volumes were calculated based on the need to capture flood volume during a 3-hour storm event.

**TABLE 5.8-1
PROJECT STORMWATER STORAGE VOLUMES**

Drainage Area	Flood Volume (acre feet)	Basin Storage (acre feet)	Lake Storage (acre feet)
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Source: MSA Consulting Inc., Tentative Tract Map No. 38470 Preliminary Hydrologic Summary, November 4, 2022. See Appendix N.

As previously discussed, the proposed development reduces its potential to impact surface water quality by adhering to the established water quality and stormwater regulations under the regulatory framework of the NPDES under the CWA during construction and throughout the life of the Project. This is accomplished through implementation of the SWPPP during construction of the Project, and the Project-Specific WQMP during the life of the Project. Through this required compliance, the Project would prevent adverse impacts to the local receiving waters and avoid Project violations to the established water quality standards and waste discharge requirements.

With the proposed improvements, the Project will not create or contribute to stormwater runoff volumes which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

iv. Impede or redirect flood flows?

The regional topography of the City naturally drains from the northwest to the southeast, eventually draining to the Salton Sea. The Project Site similarly drains from the northern to the southern side of the site. The Project Site is currently vacant with scattered vegetation. The northern, eastern, southern, and western Project Site boundaries are Avenue 38, Madison Street, Avenue 40, and Jefferson Street respectively. These roadways are paved with curb and gutter improvements. The Project Site is surrounded by existing development and fully improved roadways that intercept and control most offsite storm flows except for volumes that enter the aforementioned existing on-site basins that accept flows from adjacent roadways. Upon implementation of the Project, the Project Site would continue to accept these flows, but these basins and inlets would be functionally replaced by the proposed drainage system.

The FEMA FIRMs serve as the basis for identifying potential hazards and determining the need for and availability of federal flood insurance. The proposed Project Site is covered by FIRM Panel Numbers 06065C1620G, which shows the southwest portion of the Project Site located in Zone X - "0.2 pct Annual Chance Flood Hazard," while the northeast portion of the site is located in Zone A - "Without Base Flood Elevation."²⁹

As a requirement of IMC Title V, Chapter 55 (Stormwater Management and Discharge Control), undeveloped properties of one gross acre or more in size and which are located north of the Whitewater River Channel (including the Project Site), must provide sufficient on-site stormwater retention upon

²⁹ MSA Consulting Inc. Tentative Tract Map NO. 38470 Preliminary Hydrologic Summary. November 2022. See Appendix N.

development for the volume of runoff resulting from a 100-year storm with a time duration which generates the maximum stormwater volume. These measures are consistent with the NPDES regulations. Stormwater runoff and volume calculation, retention location, and method of storage shall be performed to the satisfaction of the City Engineer. Retention facilities throughout the Project Site would ensure that the site would collect, convey, and retain the on-site stormwater. Drainage flow on the Project Site would generally maintain its natural drainage course from the northern site boundary to the southern site boundary, and into the proposed on-site retention area.

Since the Project Site is currently surrounded by developed land, including off-site stormwater improvements, the Project is not anticipated to result in the redirection of flood flows. The Project is consistent with the General Plan, and as required by the General Plan Update EIR, the Project will comply with applicable laws and regulations that concern stormwater runoff and the protection of drainage patterns, including the Municipal Code, Chapter 153 and Chapter 155, GPU policies and regulations.³⁰ All required on-site stormwater runoff would be collected within the Project boundaries in compliance with the IMC. Impacts would be less than significant.

Threshold 5.8-4: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Adherence to the State GCP, implementation of the SWPPP, and adherence to the City's Floodplain Management requirements, would ensure that surface and groundwater quality are not adversely impacted during construction. In addition, implementation of the BMP measures at the site, including catch basins and retention basins, would ensure that water quality is not impacted during the operational phase of the Project. As a result, site development would not obstruct or conflict with the implementation of the Colorado Basin Water Quality Control Plan.

Water service for the Project will be provided by the CVWD and there would be one on-site wells for backup use of groundwater. CVWD has implemented a number of programs to maximize the use of local water supplies and reduce demands including significant recycled water and water conservation programs. Therefore, the Project would not obstruct or conflict with the 2020 Regional UWMP, applicable water quality control plans, or applicable sustainable groundwater management plans. Therefore, impacts would be less than significant.

CUMULATIVE IMPACTS

The cumulative impact analysis in this Draft EIR considers related development projects in the area (see **Section 4.0: Environmental Setting**). The Colorado River Basin RWQCB has issued a MS4 permit for stormwater discharges. The County, CVWD, and other co-permittees have prepared a stormwater management program addressing requirements for meeting this MS4 permit. The County reviews all plans

³⁰ City of Indio. *City of Indio General Plan Update EIR*. "Chapter 4.9, Hydrology and Water Quality." <https://www.indio.org/departments/community-development-department/general-plan-2040/environmental-impact-report>. Accessed December 2022.

and developments for compliance with existing ordinances (e.g., grading ordinance) and stormwater management program requirements.

With regard to water quality, the related projects would be required to comply with the NPDES General Construction Permit, including the implementation of a site-specific SWPPP, to prevent polluted runoff from entering local stormwater drainage systems during construction activities. Additionally, each related project would be subject to NPDES requirements after buildout and applicable municipal code requirements in the IMC. As each related project would be required to comply with NPDES requirements and local regulations designed to prevent polluted runoff from entering local storm drain systems and receiving water bodies during construction and after buildout, the cumulative impact to water quality would be less than significant. Further, as compliance with NPDES and local municipal code requirements would prevent substantial erosion and siltation, the cumulative impact related to erosion and siltation would also be less than significant.

With regard to flooding and storm drain capacity, the related projects would be required to adequately convey stormwater runoff such that flooding does not occur. Projects within the City are subject to the IMC, which includes several regulations pertaining to flood control facilities within new development projects.³¹ These regulations require that proposed drainage facilities be designed to convey flows associated with a 100-year storm event. Similarly, the Project is designed to convey flows associated with a 100-year event. Compliance by the related projects with applicable municipal code requirements, CVWD regulations, and California Drainage Law would result in less than significant cumulative impacts.

Section 5.16.1: Water Service and Supply of this Draft EIR includes a detailed analysis of the water demand associated with the related projects and the effect on groundwater supply and recharge. As discussed, the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

Groundwater supply and basin overdraft are currently being assessed and management plans are being implemented by CVWD to minimize impacts with increased development on groundwater supplies. Over the next 20 years, groundwater extraction is expected to decrease slightly as groundwater basin management activities are executed and sustainable levels of pumping are achieved. Increased future demands are expected to be met with imported water from the Colorado River and State Water Project, and groundwater management activities are expected to maintain groundwater levels and safe yields. These groundwater management activities will ensure that groundwater supplies are not depleted or degraded. Therefore, the cumulative impacts would be less than significant.

Development projects, including commercial, industrial, and residential, individually, and cumulatively will create more impervious surfaces thus reducing the total groundwater recharge area. However,

31 IMC. Title XV. Chapter 153 Floodplain Management.

projects located within the local watershed also have the possibility of adding to the Whitewater River subbasin through the addition of imported and/or recycled water. The water used for irrigation could offset the difference in the reduction of groundwater recharge area to rainfall-related recharge that occurs today. Accordingly, the cumulative impact would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

5.9 LAND USE AND PLANNING

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential land use impacts of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) and the Project’s consistency with applicable land use plans and policies, including the City of Indio General Plan. Land use impacts can be either direct or indirect. Direct impacts result in land use incompatibilities or the division of neighborhoods or communities. Indirect impacts are secondary effects resulting from conflicts with implementation of land use policies, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of this Draft EIR.

REGULATORY SETTING

Regional

Southern California Association of Governments

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses more than 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region’s MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

SCAG is also responsible for the designated Regional Transportation Plan (RTP) including its Sustainable Communities Strategies (SCS) component pursuant to SB 375. The SCS has been formulated to reduce GHG emissions from passenger vehicles by 8 percent per capita by 2020, by 18 percent per capita by 2035, and by 21 percent per capita by 2040, compared to 2005 targets set by the California Air Resources Board (CARB).

The 2016-2040 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations.

Coachella Valley Association of Governments

The CVAG is a sub-regional organization within SCAG. CVAG is made up of ten cities, Riverside County and two Native American Indian tribes. CVAG represents member local governments and agencies throughout the Coachella Valley seeking cooperative sub-regional and regional planning, coordination and technical assistance on issues of mutual concern. CVAG is made up of several departments, including an Energy and Environmental Resources Department that monitors and implements both regional and local plans related to energy and air quality issues, waste management, water quality, habitat conservation planning and trails issues.

Coachella Valley Conservation Commission

The Project Site is located within the jurisdiction of a habitat conservation plan prepared in the Coachella Valley - the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The Coachella Valley Conservation Commission (CVCC), a joint powers authority of elected representatives, oversees and manages the CVMSHCP. The CVCC has no regulatory powers and no land use authority. Its primary purpose is to buy land from willing sellers in the conservation areas and to manage that land.¹ The CVMSHCP addresses approximately 1.2 million acres encompassing the Coachella Valley and the surrounding mountains up to the ridgeline. The CVMSHCP aims to conserve over 240,000 acres of open space and protect 27 sensitive plant and animal species in the Coachella Valley and the surrounding mountains while creating a robust system open space parks, trails, and reserves.²

The CVMSHCP, which became effective in October of 2008, is a regional conservation plan that identifies and coordinates the permanent protection of habitats, biological linkages and corridors, and ecological processes for the benefit of plants and wildlife. CVMSHCP participants include Riverside County, the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage, as well as the Coachella Valley Water District and Imperial Irrigation District. The Coachella Valley Association of Governments serves as the lead agency for plan review and, in coordination with the Coachella Valley Conservation Commission, overseeing the plan implementation. The plan enables the participating public agencies (permittees) to comply with both the State and Federal Endangered Species Acts and other regulations promulgated to protect listed plants and wildlife.

Local

City of Indio General Plan

The Project Site is located within the boundaries of the City of Indio. The Indio General Plan 2040, adopted in September 2019, establishes the City's policy relative to the planned future pattern, intensity, density, and relationships of land uses in the City and the various infrastructure systems needed to

1 Coachella Valley Conservation Commission. "Coachella Valley Multiple Species Habitat Conservation Plan Fact Sheet." <http://www.cvmshcp.org/doc/Fact%20Sheet%20CVMSHCP.pdf>. Accessed November 2022.

2 Coachella Valley Conservation Commission. "Coachella Valley Multiple Species Habitat Conservation Plan Fact Sheet." <http://www.cvmshcp.org/doc/Fact%20Sheet%20CVMSHCP.pdf>. Accessed November 2022.

effectively support those land uses. The proposed Specific Plan would implement the Indio General Plan by bringing detailed policies and regulations together into a focused development plan for the proposed Project, serving as a link between the Indio General Plan and subsequent development proposed within the Specific Plan area.

The City's General Plan designates land area into one of three categories based on the level of change anticipated by 2040: (1) Preserve, Minor Change; (2) Enhance, Moderate Change; and (3) Transformation, major change. The Project Site is located in an area identified Enhance, Moderate Change. Areas designated Enhance, Moderate Change are those where change is desired over the time horizon of the General Plan and where change will happen gradually through 2040 and beyond. These are areas expected to see moderate development over time and the area may, after 15 to 20 years, look very different than it does at present. The Project Site is surrounded by areas to the west also identified Enhance, Moderate Change while the areas to the north, east, and south are identified Preserve, Minor Change.

The City's General Plan also identifies "place types" and "sub-types," which indicate the purpose and intended use for each parcel within the City, developed to provide a clear, yet flexible, structure that adapts to changing economic conditions and community vision. Each place type provides direction on use, intensity, density, form, and character of desired development. The Project Site is located within an area designated for "Neighborhood" development, and a sub-area designated for "Suburban Neighborhood-High" development. The General Plan recommends that neighborhoods include a balanced mix of activity that includes a variety of dwellings, small, shops and workplaces, civic buildings, and parks within a walkable network of streets, such that complete, compact, and connected neighborhoods are created.

The Suburban Neighborhood-High designation provides for low intensity neighborhood development that features a limited variety of housing choices, consisting primarily of single-family detached and attached homes organized along walkable streetscapes with commercial activity nearby. Areas designated for suburban neighborhoods permit single-family detached and attached residential and parks and recreation as primary uses, and public facilities and resort uses as secondary uses. Development intensities in these areas are permitted to be up to 8 DU/AC. Streets are to be landscaped with formal or informal street tree patterns and sidewalks on at least one side, with the typical vehicular design speed of 25 mph. Blocks as defined by streets in these areas may be large, up to ½ mile in perimeter, but should provide pedestrian paseos or paths in order to reduce the effective pedestrian perimeter to a maximum of 2,000 feet.

Much of the open space within the suburban neighborhood area is to be provided by generous streetscapes and landscaped front yards, but should also include neighborhood parks, linear parks, greenways, trails, and other park types, with both naturalistic and formal landscaping patterns permitted. Buildings in the suburban neighborhood area should be set back from the street to provide moderate to large front yards, and should primarily consist of one- to two-story single-family homes. Single-family attached and small

multifamily housing may be integrated with single-family detached housing, but must be of a scale and character compatible with nearby single-family homes.

The General Plan further divides the City into specific geographic subareas, each of which has unique identifying characteristics. The Plan discusses the location, character, and key issues for each subarea, along with strategies specific to each. Subarea specific strategies are in addition to citywide goals and policies established in the Land Use Element, and it is expected that a mix of both citywide and subarea specific strategies will be implemented for each neighborhood. The Project Site is located in the Northwest Indio subarea. The General Plan identifies the potential for the development of Suburban Neighborhoods and Desert Estate Neighborhoods and resorts in this subarea. It is recommended that a connected mix of such types be planned for this area, with Suburban Neighborhoods abutting existing similar neighborhoods, transitioning to Desert Estate Neighborhoods abutting the surrounding open desert areas. The strategies established for the Northwest Indio Subarea are listed below:

Northwest Indio Subarea Strategies:³

- Provide greater connectivity in new neighborhoods than is present in the adjoining existing neighborhoods.
- Provide strong spatial connections between new neighborhoods and adjoining open spaces, with new development facing edge drives along urban and natural open spaces rather than backing toward those spaces.
- Allow for the development of a Neighborhood Center that would provide access to goods and services to community residents, the northwest corner of 39th Avenue and Jefferson Avenue would be a candidate location for this use.
- Provide a rural edge character along the open desert to north.
- Plan for an orderly transition from rural land uses to a more urban character over time. Avoid land use incapability when assessing new development proposals.

City of Indio Zoning Ordinance

The Indio City Council adopted new citywide zoning regulations on October 22, 2022, called the Indio Unified Development Code⁴ (Indio Development Code), the provisions of which supersede all prior ordinances codified in Chapters 150, 154, 156, and 159 (and any amendments) of the Indio Municipal Code. The purpose of the Indio Development Code is to implement the City's General Plan and to achieve the following objectives:

- Achieve the arrangement of land uses depicted in the City of Indio General Plan, consistent with the goals and policies of the General Plan;
- Provide standards for the orderly growth and development of the city, and guide and control the use of land to foster a safe, harmonious, convenient, attractive, and workable relationship among land uses;

3 City of Indio. *City of Indio General Plan*. Adopted September 2019. "Chapter 3: Land Use and Urban Form." Page 3-31.

4 City of Indio. "Unified Development Code." Adopted October 22, 2022.

- Ensure that public and private lands ultimately are used for the purposes which are most appropriate and most beneficial to the city as a whole;
- Ensure consideration of natural environmental features in the development and use of land within the city;
- Revitalize and connect neighborhoods to preserve and enhance quality of life in the city;
- Facilitate the appropriate location of community facilities, institutions, transportation, and parks and recreational areas;
- Promote economic growth and the creation of jobs;
- Promote high-quality design in the development process so that new development enhances the appearance of the city as it matures;
- Encourage infill development in existing sections of the city and provide for innovative and sustainable development in undeveloped areas;
- Define duties and powers of administrative bodies and officers responsible for implementation of the Code.

Under the Indio Development Code, the entirety of the Project Site is zoned for Suburban Neighborhood 8 (SN-8). The SN-8 zone is intended to provide low-intensity neighborhood development for single-family, detached homes at a density of up to eight dwelling units per acre. This zone implements the Suburban Neighborhoods General Plan land use designation.

The Specific Plan, upon its implementation, will supersede the zoning for the entire Project Site, resulting in the entire Site being zoned Specific Plan (SP). Once adopted, the Specific Plan will govern all use and development of the properties within the bounds of the Plan. On any subject where the Specific Plan is silent regarding development standards, the provisions of the Development Code will apply. No future discretionary entitlement applications or other permits may be approved, adopted, or amended within an area covered by the Specific Plan unless found to be consistent with the adopted Specific Plan. The adoption and amendment procedures for the Specific Plan listed within the Plan itself will be the only means by which such supplemental changes are permitted to be made.

ENVIRONMENTAL SETTING

Existing Conditions

Existing On-Site Land Uses

The Project Site, including the alternative IID substation site on the northwest corner of Avenue 40 and Burr Street, consists entirely of undeveloped relatively land used for agriculture until approximately 5 years ago. The topography of the site gently slopes from northwest to southeast, ranging from 52.2 feet above sea level to 32.3 feet above sea level, respectively.

While the Project Site is currently vacant and undeveloped, it has been subject to a variety of disturbances associated with past agricultural activities. These areas were routinely impacted by

agricultural activities and now support early successional and non-native plant species with Tamarisk thicket the dominant plant community on the site.

Existing Surrounding Land Uses

The Project Site makes up most of the area bordered by Avenue 38 to the north, Madison Street to the east, Avenue 40 to the south, and Jefferson Street to the west. Not included in the Project Site are a small neighborhood of single-family homes adjacent to Avenue 38 and Jefferson Street to the northwest, the CVWD Wastewater Treatment Plant adjacent to Avenue 38 and Madison Street to the northeast, and a number of vacant parcels adjacent to Jefferson Street and Avenue 40 to the southeast. The boundaries of the Project Site are illustrated in **Figure 5.9-1: Project Site Boundary**.

North of Avenue 38, land uses primarily consist of neighborhoods of single-family homes and open space protected as part of the East Indio Hills Conservation Area. This area is designated for Residential Low, Public, and Equestrian Estates uses in the Indio General Plan. East of Madison Street and South of Avenue 40, existing development consists of the Sun City Shadow Hills residential communities, which include single-family homes and two golf courses. The area east of Madison Street is subject to a Specific Plan, and the area south of Avenue 40 is designated for Village Core and Residential Low in the Indio General Plan. West of Jefferson Street, existing land uses can be described as an area in transition from primarily agricultural to primarily developed. This area west of Jefferson Street is home to Shadow Hills High School, a church, a number of small agricultural operations, and a scattering of single-family homes, with undeveloped properties interspersed throughout. The Indio General Plan designates this area for Public and Country Estates uses. The I-10 Freeway, which runs east-west through the Coachella Valley, lies approximately one mile to the southwest of the Project Site.

ENVIRONMENTAL IMPACTS

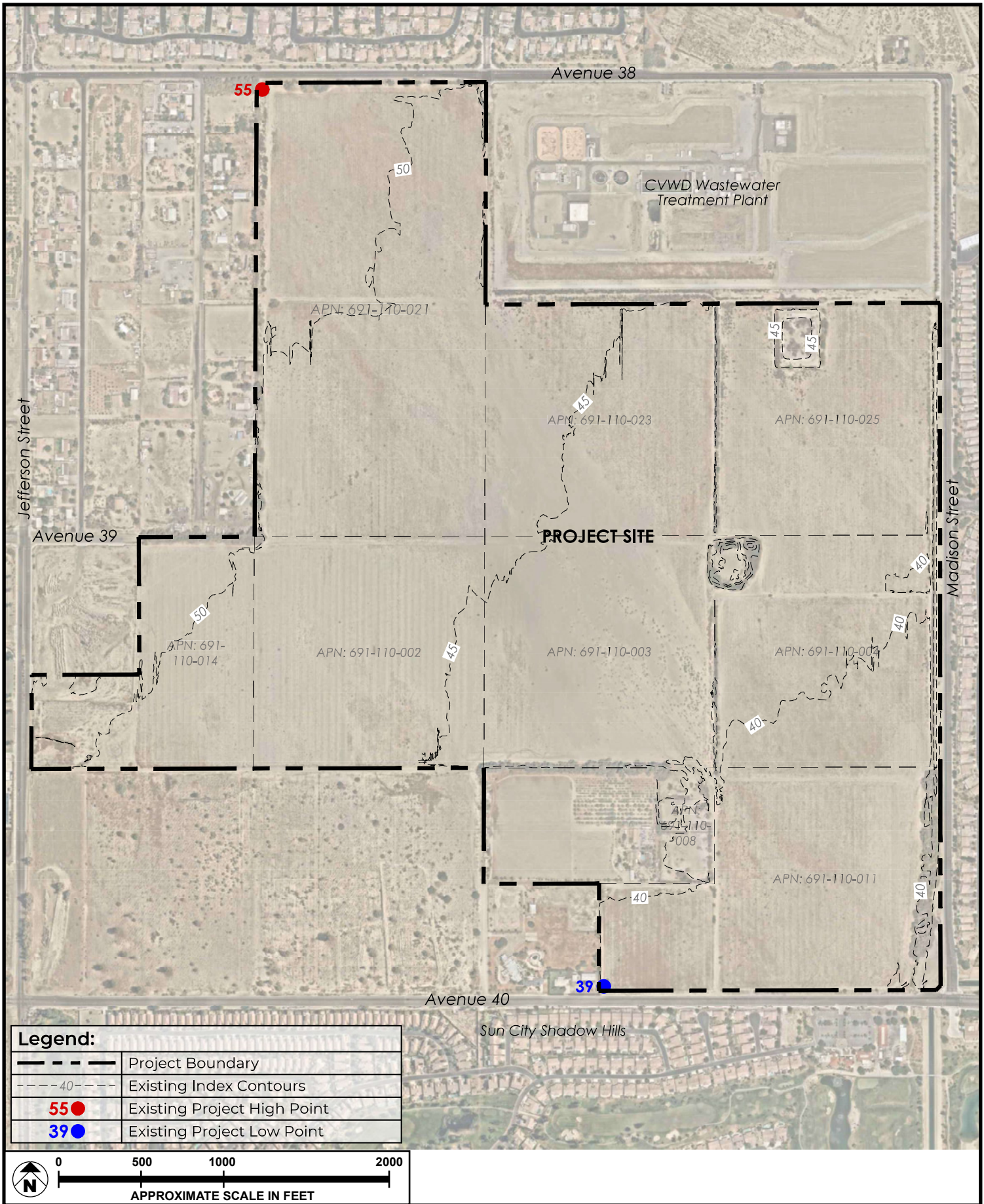
Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of land use impacts (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact related to land use if it would:

- Threshold 5.9-1:** Physically divide an established community.
- Threshold 5.9-2:** 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.

Methodology

The determination of the Project's consistency with applicable land use plans and policies is based upon a review of the previously identified planning documents that regulate land use or guide land use decisions at and around the Project Site. The Project is considered to be consistent with the provisions



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 5.9-1

of the identified regional and local plans if it meets the general intent of the plans and would not preclude the attainment of the primary intent of the land use plan or policy.

Project Impacts

Upon approval and adoption of the Desert Retreat Specific Plan by the City, the Specific Plan would serve as the zoning for the Project Site. The Specific Plan would establish the necessary plans, development standards, regulations, infrastructure requirements, design guidelines, and implementation programs that would regulate future development within the Specific Plan area.

The Desert Retreat Specific Plan would regulate the development of a 378-acre active-adult community that includes up to 1,500 single-family homes and a community clubhouse and recreational center as shown in **Figure 5.9-2: Land Use Plan**. The central 26.1-acre recreational center is planned to contain amenities such as a fitness center, a movement studio, locker rooms, a covered outdoor pool, billiards tables, a golf simulator, arts and crafts room, game room, multi-purpose event lawn, sports courts, water features, outdoor kitchen, catering kitchen, ball room, terrace, and indoor coffee bar with an outdoor social bar. The project would further include an interconnected network of open spaces, or paseos, that link residences throughout the community with one another, the perimeter sidewalk network, and the central recreation amenity, providing separated amenity corridors that encourage walking and biking throughout the community. A summary of the proposed land uses proposed is presented in **Table 5.9-1: Desert Retreat Specific Plan - Land Use Plan Summary**.

TABLE 5.9-1 DESERT RETREAT SPECIFIC PLAN—LAND USE PLAN SUMMARY			
Land Use	Acres	Max Units	Max Building SF
Residential	351.6	1,500	-
Perimeter R.O.W.	2.0	-	-
Clubhouse/Recreation	26.1	-	26,100
Total	377.7	1,500	26,100

Source: Desert Retreat Specific Plan. MSA Consulting Inc. August 2022.

The Specific Plan would allow development of up to 1,500 single-family homes with a gross density of approximately 4 du/ac and a community clubhouse and recreation area on approximately 378 acres of land. 351.6 acres of this 378 would be designated for residential uses, 2.0 acres would be designated for rights-of-way, and 26.1 acres would be designated for the community clubhouse and recreation area, which would contain a maximum of 26,100 square feet of building space. The Specific Plan includes development standards for the proposed residential units, detailed in **Table 5.9-2: Residential Lot Standards**, including a maximum lot coverage of 65% at minimum lot areas of 4,400 ft. All of the residential buildings in the project would be single-story structures and include single story elements.

Table 5.9-2 displays the sizes for the potential residential units permitted within residential areas.

**TABLE 5.9-2
RESIDENTIAL LOT STANDARDS**

Lot Standards	
Minimum Lot Area	4,400 ft
Minimum Lot Width	40 ft
Minimum Corner Lot Width	50 ft
Minimum Lot Depth	100 ft
Maximum Lot Coverage	65%
Setbacks	
Front to living area or side loaded garage	10 ft
Front to garage ¹	20 ft
Side	5 ft
Street Side	10 ft
Rear ²	15 ft
Accessory Structures	See IMC Section 159.689
Parking	
Single Family Residence	4 Spaces ³

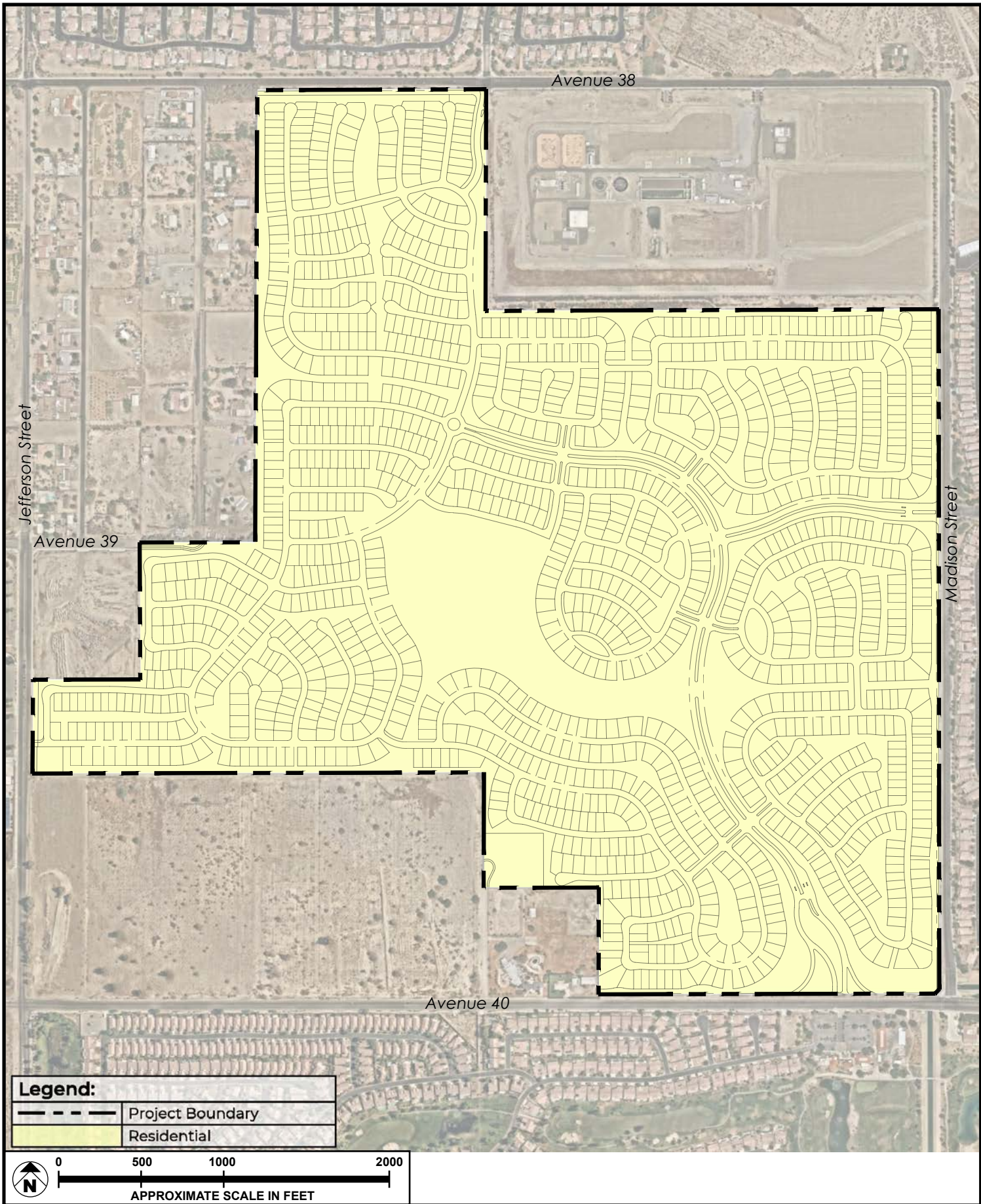
Source: *Desert Retreat Specific Plan. MSA Consulting Inc. August 2022.*

Notes:

1. Measured from right of way.
2. Accessory structures may encroach into the rear yard up to 5' from rear property line.
3. 2 garage spaces plus 2 driveway spaces.

Primary vehicular access to the interior private street system would be provided at three locations from the surrounding public arterial streets, which are fully constructed with curb and gutter to City standards. The Specific Plan provides for one signalized entry from Madison Street, one 4-way stop entry from Avenue 38, and a standard signalized intersection that aligns with Camino San Gregoria on Avenue 40 near the corner of Madison Street at the primary entrance to the community. The primary residential entry at Avenue 40 would be gated and feature a guardhouse, and the secondary entries at Madison Street and Avenue 38 would feature remote-operated gates. Vehicles will circulate through standard residential streets and project entrances in compliance with City engineering and Fire Department design standards. The circulation system is illustrated in **Figure 3.0-4: Vehicle Circulation Plan in Section 3.0: Project Description** in this Draft EIR.

Pedestrian and multimodal circulation would be accommodated through the community through inclusion of a network of paseos and on-street sidewalks that connect residences, the community center, and the public trail and sidewalk network along the Project's perimeter. The Project provides multiple pedestrian access points to connect the interior walkway system to public sidewalks and trails on Avenue 40, Madison Street, Jefferson Street, Avenue 38 and Avenue 39. The pedestrian and multimodal circulation system is illustrated in **Figure 5.9-3: Pedestrian Circulation**.

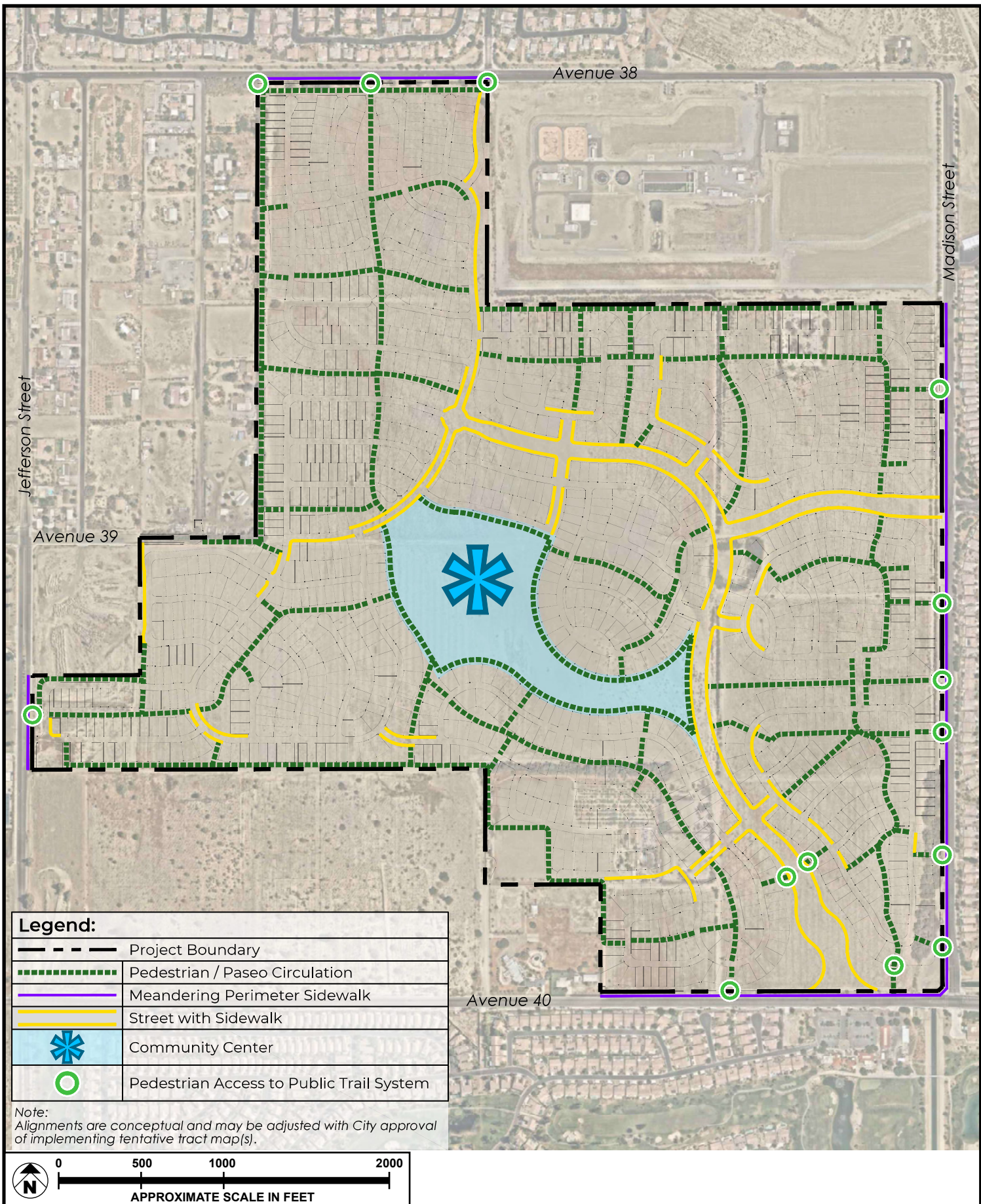


SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 5.9-2



Land Use Plan



SOURCE: MSA Consulting, Inc. - 2022;

FIGURE 5.9-3

Threshold 5.9-1: Would the project physically divide an established community?

The Project Site consists of vacant, undeveloped land within the Northwest Indio subarea of the City of Indio. The site consists of the majority of the area within the bounds of Avenue 40, Jefferson Street, Avenue 38, and Madison Street, all of which are public arterial streets. Portions of this area that lie outside of the Project Site include a small neighborhood of single-family homes adjacent to Avenue 38 and Jefferson Street to the northwest, the CVWD Wastewater Treatment Plant adjacent to Avenue 38 and Madison Street to the northeast, and a number of vacant parcels adjacent to Jefferson Street and Avenue 40 to the southeast.

Outside the bounds of the adjacent arterial streets, the Project Site is surrounded by urban development with some vacant, undeveloped land interspersed to the west and to the northeast, where the land is protected from development as part of the East Indio Hills Conservation Area. To the north of the Project Site are single-family residential neighborhoods abutting the undeveloped Conservation Area lands to the northwest; to the east and south existing development consists of the Sun City Shadow Hills residential communities, which include single-family homes and two golf courses; to the west existing land uses can be described as an area in transition from primarily agricultural to primarily developed. This area west of Jefferson Street is home to Shadow Hills High School, a church, a number of small agricultural operations, and a scattering of single-family homes, with open spaces interspersed throughout. While the proposed Project is surrounded by a variety of residential and other uses, it will not physically divide any established community. Rather, the Project's perimeter improvements will help connect the Project to these existing communities and, in some instances, will improve connectivity between existing communities with improved sidewalks, bicycle lanes, and roadway improvements.

The Project would include development of an active-adult residential community that includes up to 1,500 single-family homes and a community clubhouse and recreational center. All land uses within the Project would be single-family residential in nature, and the community would be oriented around the clubhouse and recreational center as the defining feature of the site.

The Project Site is bordered to the east and north by three-lane asymmetrical streets, to the west by a four-lane divided arterial street, and to the south by a two-lane street with a center turning lane. As described previously, the Project Site is surrounded by the water treatment plant to the north, a small neighborhood of single-family homes to the west, and, across the adjacent arterial streets, single-family residential neighborhoods to the north, east, and south, and by a mix of single-family homes, public facilities, agricultural operations, and vacant lands to the west. The neighborhoods to the east and south, across Madison Street and Avenue 40, respectively, make up the existing Sun City communities, which would adjoin with the proposed Desert Retreat community.

The existing residential communities to the north, east, and south are enclosed by walls. These barriers are intended to shield interior residents from roadway noise and provide a sense of security and privacy. Similarly, on-site walls enabled by the Project would offer future residents of the Project Site noise insulation and a sense of security and privacy typical of surrounding residential developments. Further,

the Specific Plan would enable development of a network of paseos and on-street sidewalks designed to connect residences in the community with one another, the community center, and with the surrounding pedestrian network that includes sidewalks and trails, providing safe and convenient access to destinations within and beyond the Project Site.

As the proposed development detailed in the Specific Plan would be consistent with the surrounding developments and provide improved vehicular and pedestrian access both within and beyond the Project Site, development of the proposed uses would not result in a conflict with, or divide, any established community. Accordingly, impacts would be less than significant.

Threshold 5.9-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Since the Project Site is entirely within the City of Indio and therefore subject to the City's land use regulations, the consistency of the Project with the City's land use plans and policies applicable to the area and to topics of environmental concern is discussed below. Additionally, because the City participates in regional planning efforts coordinated by SCAG and CVCC, consistency with regional planning policies and efforts related to topics of environmental concern are also evaluated.

City of Indio General Plan Analysis

The City of Indio General Plan includes multiple levels of policies related to the desired vision, land uses, and strategies for different areas in the City in addition to the parcel-by-parcel zoning established in the City's Zoning Ordinance. These levels of policies address Areas of Change, which describe the degree of change expected in given areas over the plan's horizon, Place Types and Sub-Types, which broadly describe the type and intensity of desired land uses in given areas, and City Subareas, which provide additional details regarding the location, character, and key issues for each area of the city, along with strategies specific to each. Goals, strategies, and policies established in the General Plan Land Use Element are intended to be applied in combination with subarea specific strategies established for each neighborhood.

Since the uses permitted by the proposed Specific Plan are allowed by the current Suburban Neighborhood-High land use designation for the Project site, no General Plan amendment is proposed as part of the Project.

The Project Site is located in an Area of Change identified "Enhance, Moderate Change" which describes areas of the City where change is desired and expected to happen gradually over the entire horizon of the General Plan and beyond, with moderate development resulting in the area looking very different than it does at present. The site is surrounded by areas designated "Enhance, Moderate Change" to the west and by areas designated "Preserve, Minor Change" to the north, east, and south, where limited improvements are desired such that the general character of the area remains the same over the planning horizon.

The General Plan's Place Types include three broad categories: Neighborhoods, Centers, and Districts; there are several sub-types associated with each. The Project Site is located in an area designated as a Neighborhood place type, described by the General Plan as areas that include a balanced mix of activity that includes a variety of dwellings, small shops and workplaces, civic buildings, and parks. The vision of the Plan is to create complete, compact, and connected neighborhoods that provide a high quality of life for residents that mix a variety of residential types, parks, schools, and neighborhood centers within a walkable network of streets. There are several sub-types of neighborhoods established in the General Plan: Desert Estate, Suburban Neighborhood, Mixed-use Neighborhood, and Connected Neighborhood. The Project Site is designated for Suburban Neighborhood development and is surrounded by areas also designated for Suburban Neighborhood-High development, except for the site of the CVWD Wastewater Treatment Plant, which is designated for Public and Institutional use. The Suburban Neighborhood designation is designed to provide for low intensity neighborhood development that features a limited variety of housing choices, characterized primarily by single-family houses with small, low-intensity multi-family dwelling groupings organized along walkable streetscapes with commercial/retail activity nearby. Land use characteristics and standards associated with the Suburban Neighborhood-High designation are detailed below:

- Allowed Uses
 - Primary: Single-family residential, multi-family residential, parks and recreation
 - Secondary: Public facilities, resort
- Allowed Development Intensities
 - DU/AC: Up to 8
 - Commercial FAR: N/A
- Streetscape
 - Streets are landscaped with formal or informal street tree patterns and sidewalks on at least one side. The typical vehicular design speed is 25 mph.
- Connectivity
 - Blocks may be large, up to ½ mile in perimeter. They are defined by streets, but blocks should provide pedestrian paseos or paths reducing the effective pedestrian perimeter to no more than 2,000 feet. Street intersection density should be at least 140 intersections per mile.
- Open Space
 - Much of the neighborhood open space is provided by the generous streetscapes and landscaped front yards. Suburban neighborhoods also have neighborhood parks, linear parks, greenways, trails, and other park types. Landscape patterns may be naturalistic or formal.
- Building Form and Character
 - Buildings are set back from the street to provide moderate to large front yards. Buildings are primarily one- and two-story single-family houses. Single-family attached and small multifamily housing - with a scale and character compatible with nearby single-family homes - may be integrated with single-family detached housing.

As discussed above, the City's General Plan discusses the location, character, and key issues for each subarea of the City, along with strategies specific to each designed to be implemented in conjunction with the citywide policies established in the General Plan's Land Use Element. The Project Site is located in the Northwest Indio subarea. This area is described in the General Plan as offering significant potential for the development of Suburban Neighborhoods, Desert Estate Neighborhoods, and Resorts. The Plan recommends that a connected mix of such types be planned for this area, with Suburban Neighborhoods abutting existing similar neighborhoods, transitioning to Desert Estate Neighborhoods abutting the surrounding open desert areas. The subarea-specific strategies associated with the Northwest Indio subarea are detailed below:

- Provide greater connectivity in new neighborhoods than is present in the adjoining existing neighborhoods.
- Provide strong spatial connections between new neighborhoods and adjoining open spaces, with new development facing edge drives along urban and natural open spaces rather than backing toward those spaces.
- Allow for the development of a Neighborhood Center that would provide access to goods and services to community residents, the northwest corner of 39th Avenue and Jefferson Avenue would be a candidate location for this use.
- Provide a rural edge character along the open desert to north.
- Plan for an orderly transition from rural land uses to a more urban character over time. Avoid land use incapability when assessing new development proposals.

The City's General Plan states that the Zoning Code, Specific Plans, and other planning proposals and plans are tools used for the systematic implementation of the General Plan. As a proposed Specific Plan, the Desert Retreat Specific Plan would, upon its adoption, serve as the City's official zoning for the Project Site, carrying responsibility for the implementation of the General Plan. As such, these documents, including the Desert Retreat Specific Plan, must be consistent with the goals, policies, and standards laid out in each element of the General Plan. A detailed analysis of the Project's consistency with the policies of the various elements of the City's General Plan related to topics of environmental concern is provided in **Table 5.9-3: City of Indio General Plan Analysis**. The analysis contained in **Table 5.9-3** concludes that the Project would be consistent with the City's General Plan. Therefore, implementation of the Project would not result in significant land use impacts due to inconsistency with the City's General Plan. Accordingly, impacts would be less than significant.

**TABLE 5.9-3
CITY OF INDIO GENERAL PLAN ANALYSIS**

Relevant General Plan Policies

Specific Plan Consistency

Land Use Element

GOAL LU-1: Citywide Urban Structure. An urban structure that enhances the quality of life of residents, meets the community’s vision for the future, and weaves new growth areas together with established Indio neighborhoods.

LU-1.1 Overall City Structure.

Establish a clearly defined city structure by:

- Re-establishing the City’s pedestrian-oriented Downtown as a community anchor with local and regional-serving civic, arts, education, and entertainment uses.
- Transforming the Midtown area into a mixed-use center with retail, commercial services, and residential uses in a walkable format.
- Maintaining and enhancing the Festival District as a key location for large-scale entertainment and recreational opportunities. This will be accomplished by enacting buffering standard through zoning for Festival District properties and surrounding non-Festival District properties to limit conflicts in the uses and operations of these properties.
- Creating mixed-use corridors along Highway 111, Monroe Street, Avenue 42, and Avenue 44 that contain a mix of retail, service, office, and residential uses. Corridors should have defined nodes that provide a mix of local- and regional-serving uses.
- Investing in existing residential neighborhoods adjacent to Downtown and Midtown.
- Infilling new residential neighborhoods arranged around neighborhood centers and community gathering spaces, such as schools and parks.
- Maintaining the I-10 Employment Corridor subarea as a critical economic engine for the City.
- Facilitating major, regional-serving commercial districts that provide a mix of commercial, entertainment, and service uses in a pedestrian-oriented format north of I-10 at Jackson Street and Avenue 40 to capitalize on regional transportation and access.

Consistent. The Desert Retreat Specific Plan proposes a new residential community on vacant land surrounded by existing residential neighborhoods with similar characteristics. The proposed community is oriented around a central gathering place, including a community clubhouse and outdoor amenities such as pickle ball courts, bocce ball courts, tennis courts, and water features. The proposed community would be located near to lands designated as part of the East Indio Hills Conservation Area but would not infringe upon or otherwise impact this protected open space.

LU-1.3 Contiguous development. When development occurs outside the Downtown, Midtown, and existing central neighborhoods, locate new development adjacent to Indio’s built environment to create a contiguous expansion of the City.

Consistent. The Specific Plan proposes the development of a new residential community in the North Indio Planning Area to be located outside of Indio’s Downtown, Midtown, and existing central neighborhoods. The Project Site is located adjacent to existing residential neighborhoods, a school, and well-developed

**TABLE 5.9-3
CITY OF INDIO GENERAL PLAN ANALYSIS**

Relevant General Plan Policies	Specific Plan Consistency
<p>LU-1.4 <u>Connecting new and old</u>. Connect new growth areas with existing Indio neighborhoods through transportation investments, open space connectivity, wayfinding, and urban design strategies.</p>	<p>transportation infrastructure. The proposed development would represent a contiguous expansion of the City’s built environment.</p> <p>Consistent - The Specific Plan defines a network of connective open space corridors to be integrated throughout the Specific Plan area as a unifying design feature, identified in the Specific Plan as pedestrian trails or “paseos,” as well as connecting on-street sidewalks. These design features provide multiple pedestrian access points to destinations within the community and to public sidewalks and trails on Avenue 40, Madison Street, Jefferson Street, Avenue 38 and Avenue 39. Pedestrian access to public trails and sidewalks serves to connect the proposed development to existing neighborhoods and public facilities located in close proximity to the Specific Plan area.</p>
<p>LU-1.5 <u>Subareas</u>. Implement the strategies identified for each distinct subarea in Indio in this General Plan.</p>	<p>Consistent. The Specific Plan area is located in the General Plan’s Northwest Indio subarea. This area is primarily designated for the development of Suburban Neighborhood and Desert Estates “place types” per the City’s General Plan, as well as resorts. Strategies associated with this subarea are focused on the creation of an orderly transition from greater intensity development in Suburban Neighborhoods to lower intensity Desert Estates neighborhoods adjacent to protected desert open spaces on the fringes of the built environment, as well as on the provision of a greater degree of connectivity in new neighborhoods and surrounding developed and open space areas. The Specific Plan is consistent with these subarea policies in that it provides a greater degree of pedestrian and vehicle connectivity with surrounding areas than do older neighborhoods in the area.</p>
<p>GOAL LU-2: Active Places. Indio is a City with active and comfortable places that encourage social interaction and community gathering.</p>	
<p>LU-2.1 <u>Walkable neighborhoods</u>. Require all new neighborhoods to be pedestrian friendly by including features, such as short blocks, wide sidewalks, shaded streets, buildings that define and are oriented to streets or public spaces, traffic-calming features, convenient pedestrian street crossings, and safe streets designed for pedestrians, cyclists, and vehicles.</p>	<p>Consistent. The Specific Plan includes a network of pedestrian trails, or paseos, to provide an interconnected system of open spaces that link individual residences throughout the community with one another, the public sidewalk system along the community’s perimeter, and the community’s central amenity area. The Specific Plan also includes a network of on-street sidewalks that connect both to this network of pedestrian corridors and the surrounding public sidewalk network. This combination of separated pedestrian corridors and on-street sidewalks is designed to facilitate safe and convenient circulation of pedestrians,</p>

**TABLE 5.9-3
CITY OF INDIO GENERAL PLAN ANALYSIS**

Relevant General Plan Policies	Specific Plan Consistency
<p>LU-2.3 <u>Access to amenities.</u> Strive to create development patterns such that the majority of residents are within one-half to one-mile walking distance of a variety of neighborhood-serving uses, such as parks, grocery stores, restaurants, places of worship, cafes, dry cleaners, laundromats, banks, hair care, pharmacies, civic uses, and similar uses.</p>	<p>cyclists, and vehicles throughout the community while minimizing potential conflicts between different transportation modes.</p> <p>Consistent. The distribution of land uses illustrated in the Specific Plan’s land use map indicates that the proposed development would result in all of the planned homes being located within one mile of the community’s central amenity area. Residences in the neighborhood would be connected to these points of interest through the pedestrian circulation system, the majority of which is separated from vehicle traffic and thus safer and more convenient for cyclists and pedestrians than would be roadway access alone.</p>
<p>LU-2.4 <u>New gathering spaces.</u> Require new developments to provide public parks, plazas, and squares that establish interesting gathering spaces in planned districts and neighborhoods. Require project developers to establish mechanisms, such as a Community Facilities District, to adequately maintain new parks, recreational facilities, and infrastructure.</p>	<p>Consistent. The Specific Plan provides for the development of a central 26.1 acre community amenity area that may include amenities such as a fitness center, movement studio, locker rooms, a covered outdoor pool, billiards tables, a golf simulator, arts and crafts room, game room, multi-purpose event lawn, sports courts, water features, outdoor kitchen, firepit area, catering kitchen, terrace, and coffee bar with indoor and outdoor social areas. The proposed community is oriented around a variety of gathering spaces in order to facilitate ease of access and community interaction among residents and visitors. The Specific Plan also defines a network of connective amenity corridors, which, beyond providing pedestrian connectivity within and beyond the community, would provide safe and pleasant outdoor spaces for community recreation and interaction. These amenities and their ongoing maintenance would be funded through the establishment of a homeowner’s association, supported by homeowner’s fees to be assessed at the time of development.</p>
<p>LU-2.6 <u>Shade.</u> Require the use of large shade trees or structures to provide comfortable environments during hot months.</p>	<p>Consistent. The Specific Plan provides landscaping guidelines for all public and private spaces throughout the development, requiring the installation of primarily desert flowering trees with palm tree accents, desert accent shrubs, and ground covers such that landscaped areas of the community both aesthetically soften and shade the desert hardscape in an effort to create a comfortable, livable development.</p>
<p>LU-2.7 <u>Parking lot and prominent pathways.</u> Require trees, shade structures, and/or other cooling methods to provide comfortable walkways during hot months.</p>	<p>Consistent. The Specific Plan architectural guidelines call for homes and community buildings to include patio trellises, pergolas, roof overhangs, and other exterior structures, as well as passive solar design, in order to shade and cool outdoor areas of the community,</p>

**TABLE 5.9-3
CITY OF INDIO GENERAL PLAN ANALYSIS**

Relevant General Plan Policies	Specific Plan Consistency
	reduce building energy intensity, and create a comfortable outdoor environment throughout the planned development.
GOAL LU-3: Human-Scaled Public Realm. A City designed for people, fostering interaction, activity, and safety.	
<p>LU 3.1 <u>Streetscape design.</u> Create pedestrian-oriented streetscapes by establishing a unified approach to street tree planting, sidewalk dimensions and maintenance, pedestrian amenities, and high- quality building frontages.</p>	<p>Consistent. The Specific Plan includes extensive design guidelines for buildings, structures, and rights-of-way throughout the community. The Specific Plan includes development standards for all streets and pathways to be constructed in the development, landscaping guidelines for the trees and shrubs to be planted alongside roadways, and architectural guidelines that encourage individual home designs to de-emphasize garages by having living space closer to the street than garage doors, thus orienting the building towards the street and promoting an indoor-outdoor lifestyle.</p>
<p>LU 3.4 <u>Tree planting.</u> Encourage the planting of trees that appropriately shade the sidewalk and off- street parking areas to improve the pedestrian experience throughout the City.</p>	<p>Consistent. The Specific Plan includes landscape guidelines for all public and private spaces throughout the development, requiring the installation of primarily desert flowering trees with palm tree accents, desert accent shrubs, and ground covers such that landscaped areas of the community both aesthetically soften and shade the desert hardscape in an effort to create a comfortable, livable development.</p>
<p>LU 3.7 <u>CPTED.</u> Use Crime Prevention through Environmental Design strategies (CPTED) in new and existing development to improve public safety, including the following strategies:</p> <ul style="list-style-type: none"> • Active public space • Building design to promote “eyes on the street” • Clear delineation between private and public space • Natural access control between public and private space • Maintenance of public places • Removal or repair of vandalism or broken property 	<p>Consistent. The Specific Plan, through its provision for the creation of a robust network of pedestrian trails, a highly activated central amenity area, and building designs that emphasize orientation towards the street, would result in active public spaces and many “eyes on the street.” The Plan further includes walls and fences to be constructed in various settings throughout the community. The Project is proposed as a gated community with a perimeter community wall that provides safety and delineation of space, as well as walls delineating public open space areas and individual residential lots. The community will ultimately be maintained by a homeowner’s association to be funded through homeowner’s fees, which will result in the maintenance of clean, safe, and comfortable common areas within the community.</p>
GOAL LU-4: High-Quality Building Design. A beautiful city with a high-quality architecture and building design.	
<p>LU-4.1 <u>Quality design.</u> Use simple, urban building forms made with permanent materials with high- quality detailing that stands the test of time.</p>	<p>Consistent. The Specific Plan contains architectural guidelines, including guidelines regarding the material and color of building materials to be used in construction. Materials used in construction throughout the community are required to be high-quality, durable,</p>

**TABLE 5.9-3
CITY OF INDIO GENERAL PLAN ANALYSIS**

Relevant General Plan Policies	Specific Plan Consistency
<p>LU-4.2 <u>Scale and articulation</u>. Use building organization and construction to derive scale and articulation rather than surface ornamentation.</p>	<p>and low-maintenance, and to express permanence and quality. Multiple architectural styles are permitted throughout the community, but the Specific Plan requires that any architectural style used in the construction of homes or buildings be compatible with the overall style of the community, including through the use of colors, details, and materials.</p> <p>Consistent. The Specific Plan states that residential buildings within the community shall be single-story structures, include single-story elements, and be designed with massing consistent with historic desert residential precedents such that the overall style of the community is compatible with the vernacular style of the desert region. The Specific Plan requires that the apparent mass of constructed buildings be reduced through the use of at least one of the following architectural techniques:</p> <ul style="list-style-type: none"> • Utilize projections and recesses to provide shadow and relief at exterior walls and roof areas. • Use simple roof forms; provide interest by jogging the rooflines, varying plate lines and roof heights. Simple roof forms are strongly encouraged to address Title 24 Energy Code requirements more effectively. • Encourage indoor/outdoor relationship with shaded areas such as California Rooms as well as thoughtfully designed windows and doors that can enhance the indoor/outdoor connection. • Windows and doors may be recessed to provide depth. Accent trim and color, divided window lights, and raised panels are examples of detailing that provide individuality and interest. Awnings are permitted if they are consistent with the overall architectural style of the building. All window and door details shall be consistent with the architectural style of the home. • Walls and fencing are discussed in Section 4.3; however, private walls and fencing should be consistent with community wall themes and compatible with the architectural style of the

TABLE 5.9-3
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Relevant General Plan Policies	Specific Plan Consistency
<p>LU-4.3 <u>Building materials.</u> Convey façade articulation through the strength, depth, and permanence of building materials. Thinner cladding materials, such as stucco, stone and masonry veneers, and wood or simulated wood, may be used when finished to appear as durable and authentic of the materials they simulate.</p>	<p>buildings. Foreground plantings, vines, and espaliers are strongly encouraged to soften long stretches of walls and fencing.</p> <ul style="list-style-type: none"> • Mechanical equipment such as air conditioning and pool equipment, soft water tanks, gas meters and electric meters shall be screened from public view but accessible for meter reading. • Gutters and down spouts may be concealed or, if exposed, designed as a continuous architectural feature painted to match or contrast with the adjacent building surface. All flashing, sheet metal, vent stacks and pipes shall be painted to match the adjacent building surface. Skylights should be designed as an integral part of the roof. Their location and color should relate to the building. Patio trellises, pergolas and other exterior structures are encouraged to soften building masses, provide shade and define spaces. As with main buildings, clean forms are encouraged utilizing materials and colors complementary to building architecture and project design themes.
<p>LU-4.4 <u>Building entrances.</u> Use visual and physical design cues within a building’s design and entries to emphasize the building entrance and connections to public spaces.</p>	<p>Consistent. The Specific Plan architectural guidelines include provisions regarding materials to be used in the construction of buildings within the community. Per these guidelines, materials should be style-appropriate and promote a harmonious appearance, express permanence and quality, and be high-quality, durable, and low-maintenance in nature. Stucco is permitted as the primary material, but only stucco with a finer finish. Heavy lace stucco finishes will be prohibited in order to maintain the style and quality of constructed buildings.</p>
<p>LU-4.6 <u>Climate-appropriate design.</u> Encourage the use of building techniques and materials that relate to Indio’s warm and dry desert climate. Promote solar control and use of shade in building design and associated pedestrian amenities.</p>	<p>Consistent. The Specific Plan architectural guidelines require that entrances to buildings be clear and easily recognizable through the use of covered entrances, porches, and arcades. These details are required in order to identify entrances, provide shelter from the sun and inclement weather, and produce a sense of privacy. These architectural guidelines also recommend that porches and entryways be used to visually break up large, monolithic structures into smaller units in order to maintain the desired human scale of the community.</p> <p>Consistent. The Specific Plan design guidelines are strongly oriented towards embracing the warm and dry desert climate of Indio. The Plan’s architectural guidelines require buildings to be designed in styles consistent with historic desert residential precedents such that</p>

**TABLE 5.9-3
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Relevant General Plan Policies	Specific Plan Consistency
<p>LU-4.7 <u>Protect visual characteristics.</u> Protect Indio’s unique visual characteristics and views.</p>	<p>the overall style of the community is compatible with the vernacular style of the desert region, making use of warm colors and context-appropriate building materials. Buildings are also required to make use of solar control and shading elements in order to create a comfortable indoor-outdoor living environment, including patio trellises, pergolas, roof overhangs, and other exterior structures, as well as passive solar design.</p> <p>Consistent. The Specific Plan policies and guidelines have been designed such that the Project is sensitive to the natural environment, positively contributes to the aesthetic conditions of the surrounding community and is thoughtfully planned and integrated with its surroundings. The Project design emphasizes the desert environment, and the project’s land use plan ensures that development of the neighborhood does not infringe upon or otherwise impact the nearby East Indio Hills Conservation Area.</p>
<p>GOAL LU-5: Connected Places. A network of transportation corridors throughout the city that provides a high level of connectivity for vehicles, bicyclists, and pedestrians.</p>	
<p>LU-5.2 <u>Street connectivity.</u> Encourage short block spacing for new development to enhance connectivity to neighborhoods. In key areas of the City, work with existing landowners to improve connectivity for bicycles and pedestrians.</p>	<p>Consistent. The Specific Plan includes a connective amenity network for pedestrian circulation ensures that homes and common areas are safely and comfortably accessible on foot.</p>
<p>LU-5.4 <u>Subarea connectivity.</u> Ensure a high-level of connectivity in all Neighborhoods, Centers and Districts throughout the City. The connectivity should be measured as block perimeter or length and in external connectivity on the perimeter of a new development project.</p>	<p>Consistent. The Specific Plan includes 14 pedestrian access points to the public trail and sidewalk system where the paseo network joins with the sidewalk network within the community and along its perimeter, providing a high level of connectivity.</p>
<p>LU-5.5 <u>Connections between development projects.</u> Require the continuation of the street network or pedestrian connections between adjacent development projects and discourage the use of cul- de-sacs except where necessary or due to existing development, topographic conditions or limited access to transportation systems.</p>	<p>Consistent. While the Project contains cul-de-sacs as a traffic calming mechanism, pedestrian and bicycle connectivity is maintained through the inclusion of the connective paseo network throughout the community, allowing residents and visitors to travel directly on foot or bicycle where they would otherwise face obstructions when traveling by vehicle. The community and its pedestrian network provides connectivity within the neighborhood, to the perimeter sidewalk network, and to adjacent neighborhoods, facilitating a direct and continuous path of travel between points of interest in the surrounding area.</p>

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Relevant General Plan Policies	Specific Plan Consistency
<p>LU-5.8 <u>Connective corridors</u>. Ensure high-quality, people-oriented street design and urban design occurs where highlighted by the Connective Corridors in Figure 3-8.</p>	<p>Consistent. The Indio General Plan identifies Jefferson Street, which abuts the eastern edge of the project site, as a Connective Corridor. While this policy is meant for implementation by the City, the Specific Plan is consistent with this policy through its provision for the development of a meandering perimeter sidewalk along the eastern edge of Jefferson Street, as well as along Avenue 40 and Madison Street.</p>
<p>GOAL LU-6: Enhance Existing Neighborhoods. A City with well-maintained residential neighborhoods that support Downtown and Midtown.</p>	
<p>LU-6.1 <u>Maintenance</u>. Support the on-going maintenance and improvement of existing residential properties; in particular, encourage property owners to maintain and improve their front yards and building facades.</p>	<p>Consistent. The common areas within the community will be maintained by a homeowner’s association to be established and funded at the time of development. The Specific Plan guidelines contain provisions ensuring the ongoing maintenance of the community through the use of low-maintenance building materials, the siting of planters and other landscaping features to be accessible for maintenance, and the provision of maintenance facilities within the community.</p>
<p>LU-6.7 <u>Compatible scale</u>. Maintain high-quality existing residential neighborhoods by ensuring new development projects and infill construction are of a compatible scale and provide adequate transitions to adjacent residential properties.</p>	<p>Consistent. The Specific Plan provides for the development of a neighborhood that is compatible in scale, character, and use with the surrounding neighborhoods. As the proposed Project is functionally an extension of the existing Sun City Shadow Hills age-restricted community located the east and south, the proposed development be compatible with the existing pattern development. The paseos and pedestrian access points included in the Specific Plan would result in safe and convenient transitions to surrounding residential properties.</p>
<p>LU-6.10 <u>High-quality landscaping and fencing</u>. Encourage property owners to maintain and improve their yards and the front facades of homes and to encourage the use of drought-tolerant landscaping. Prohibit front yard fences made from concrete blocks or chain links.</p>	<p>Consistent. The Specific Plan defines a “desertscape” theme with supplemental ornamental accent landscaping while providing a commitment to water conservation and low maintenance through the use of water efficient plant materials and a state-of-the-art irrigation system. The landscape materials permitted within the Specific Plan were chosen for consistency with the desert theme, climatic conditions, soil conditions, and concern for maintenance. The Plan further includes guidelines regarding what materials are permissible for the construction of walls and fences, prohibiting the use of concrete blocks or chain-link fence.</p>

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Relevant General Plan Policies	Specific Plan Consistency
<p>LU-6.11 <u>Circulation connectivity</u>. Seek opportunities to enhance and maintain existing residential neighborhoods by improving pedestrian and bicycle facilities, installing traffic calming measures, and “punch through” cul-de-sacs.</p>	<p>Consistent. The Specific Plan provides for a high degree of pedestrian and bicycle connectivity while seeking to reduce the impact of vehicular traffic through the inclusion of traffic calming measures, such as “punch through” cul-de-sacs. These measures will create a safe and comfortable pedestrian and bicycle network that provides direct access to points of interest within and outside of the community while limiting vehicular speeds and traffic volumes.</p>
<p>GOAL LU-7: New Neighborhoods. Neighborhoods that provide a variety of housing types, densities, designs and mix of uses and services that support healthy and active lifestyles.</p>	
<p>LU-7.6 <u>Tree-lined streets</u>. Require trees on both sides of at least 60 percent of new and existing streets within the project and on the project’s side of bordering streets, between the vehicle travel way and walkway at intervals averaging no more than 50-100 feet (excluding driveways and utility vaults). This standard shall apply whenever new streets are constructed or when existing streets and sidewalks are significantly rehabilitated with existing neighborhoods. Ensuring the appropriate revenue stream to provide long-term maintenance.</p>	<p>Consistent. The Specific Plan includes the provision of extensive landscaping for arterial and collector streets within the project. Plant material selection will consist primarily of desert flowering trees with palm tree accents, desert accent shrubs, and ground cover.</p>
<p>LU-7.9 <u>Soundwalls</u>. Allow the use of soundwalls to buffer new neighborhoods from existing sources of noise pollution, such as railroads and limited-access roadways. Prohibit the use of soundwalls to buffer residential areas from arterial, boulevard, connector, Downtown, and local streets. Instead design approaches such as building setbacks, landscaping, and other techniques shall be used. In the case where soundwalls might be acceptable, require regular pedestrian access points at intervals less than 600 feet to improve access from the neighborhoods.</p>	<p>Consistent. The Specific Plan permits the use of walls for the purpose of sound abatement resulting from noise generated by common area buildings, such as maintenance facilities, in order to reduce the impact of said noise on nearby residential buildings. The Project is planned to include an exterior wall along the perimeter of the neighborhood for the purpose of privacy, safety, and delineation of the boundaries of the gated community, but all exterior walls will be decorative in nature and not designed solely for noise abatement. The perimeter of the community will feature extensive landscaping and a wide setback from the street. In addition, the Specific Plan includes regular pedestrian access points to the surrounding network of public sidewalks and trails in compliance with this policy.</p>
<p>LU-7.11 <u>Connections to key destinations</u>. Require direct pedestrian and bicycle connections between residential areas and nearby commercial and public and institutional areas as well as other residential areas.</p>	<p>Consistent. The Specific Plan includes the provision of a network of connective open space corridors to be integrated throughout the project as a unifying design feature, referred to in the Plan as pedestrian trails or “paseos,” as well as connecting on-street sidewalks. These design features provide multiple pedestrian access points to destinations within the community and to public sidewalks and trails on Avenue 40, Madison Street, Jefferson Street, Avenue 38</p>

**TABLE 5.9-3
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Relevant General Plan Policies	Specific Plan Consistency
<p>LU-7.12 <u>Access to parks and open spaces</u>. Require the design of new neighborhoods and, where feasible, retrofit existing neighborhoods, so that the majority of dwelling units are within a half-mile walking distance of a usable open space such as a tot-lot, neighborhood park, community park, or plaza/ green.</p>	<p>and Avenue 39. Pedestrian access to public trails and sidewalks serves to connect the proposed development to existing neighborhoods and public facilities located in close proximity to the Specific Plan area.</p> <p>Consistent. The Specific Plan land use plan would result in all homes in the community being located within one mile of the community’s central amenity area, and the majority of the homes being located within one mile of public trail and open space facilities located along Madison Street. Homes would be connected to these points of interest through the pedestrian circulation system, the majority of which is separated from vehicle traffic and thus safe and convenient for cyclists and pedestrians.</p>
<p>LU-12.3 <u>Fair share</u>. Require new development to pay their fair share for required improvements to public services and infrastructure.</p>	<p>Consistent. The City’s development impact fees will be paid which will ensure the development allowed by the Specific Plan will pay its fair share of public improvements and infrastructure. The proposed Project also includes a development agreement, which will include additional provisions related to improvements to public services and infrastructure needed to support the uses allowed by the Specific Plan.</p>
<p>LU-12.5 <u>Phasing of public facilities</u>. Require new parks, open spaces, and public facilities be constructed concurrent with, or prior to, the development of each residential neighborhood. All required parks, open spaces, and public facilities shall be constructed before a majority of the dwelling units are constructed.</p>	<p>Consistent. The Specific Plan includes an anticipated phasing plan that identifies five phases to provide a degree of flexibility to respond to market demand, with the central amenity area slated for development as part of Phase 1. Phasing is permitted so long as each phase accommodates the orderly extension of circulation, utilities, and infrastructure in accordance with the final conditions of approval for each project and the City’s Public Works Department.</p>
Mobility Element	
<p>GOAL ME-8: Parking. Parking will be right sized within the City.</p>	
<p>ME-8.1 <u>Off-street parking</u>. Require new developments to provide sufficient off-street parking (or payment of in-lieu fees) to reduce on-street parking congestion and increase both auto and pedestrian safety. New development shall provide electric vehicle charging stations and preferential parking for carpools, vanpools, and alternative fuel vehicles.</p>	<p>Consistent. The Specific Plan provides for each residential unit constructed to include a driveway and garage. As required by the current California Green Building Standards Code, all homes in the community will be EV capable, accommodating the future installation of a dedicated branch circuit and charging station.</p>

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Relevant General Plan Policies

Specific Plan Consistency

Health & Equity Element

GOAL HE-2: Healthy Neighborhood Design. Neighborhoods designed to encourage a healthy lifestyle for people of all ages, income levels, and cultural backgrounds.

HE-2.4 Sidewalk network. Design neighborhoods to facilitate social connectivity and walkability. This policy is implemented through the Mobility and the Land Use and Community Design Elements.

Consistent. The Specific Plan includes a network of pedestrian trails, or paseos, intended to provide an interconnected system of open spaces that link individual residences throughout the community with one another, the public sidewalk system along the community perimeter, and the central amenity area. The Specific Plan also includes a network of on-street sidewalks that connect both to this network of pedestrian corridors and the surrounding public sidewalk network. This combination of separated pedestrian corridors and on-street sidewalks is designed to facilitate safe and convenient circulation of pedestrians, cyclists, and vehicles throughout the community while minimizing potential conflicts between different transportation modes.

GOAL HE-5: Safety. Neighborhoods that enhance the safety and welfare of all residents, employers, and tourists in the City of Indio.

HE-5.

Consistent. The Specific Plan includes a number of community design features intended to promote safety and security of the neighborhood and its residents. These include exterior walls designed to provide privacy and security, gated access at each of the neighborhood’s points of entry, and a guard station at the neighborhood’s main entrance. The Plan further includes a number of CPTED strategies, such as buildings oriented towards the street and activated public spaces, that will result in greater safety through community cohesion.

HE-5.3 Community and recreational programs. Encourage the development and operation of community and recreational facilities, programs, internships and block-party neighborhood events as pre-emptive strategies to reduce youth-related crime and to serve all phases of life (e.g., children, families, senior citizens).

Consistent. The Specific Plan includes a central amenity area, featuring a number of community-oriented spaces that will facilitate a variety of programming designed to engage residents while fostering a strong sense of community. These spaces include fitness center, a movement studio, locker rooms, a covered outdoor pool, billiards tables, a golf simulator, arts and crafts room, game room, multi-purpose event lawn, sports courts, water features, outdoor kitchen, firepit seating ball room, catering kitchen, terrace, and indoor coffee bar with an outdoor social bar.

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<p>HE-5.4 <u>CPTED</u>. Use Crime Prevention through Environmental Design strategies (CPTED) in new and existing development to improve public safety, including lighting, building orientation, and landscaping measures.</p>	<p>Consistent. The Specific Plan, through its provision for the creation of a robust network of pedestrian trails, a highly activated central amenity area, and building designs that emphasize orientation towards the street, would result in active public spaces and many “eyes on the street.” The Specific Plan also includes walls and fences to be constructed in various settings throughout the community. The Project will be a gated community with a perimeter community wall that provides safety and delineation of space, as well as walls delineating public open space areas and individual residential lots. The Project will ultimately be maintained by a homeowner’s association to be funded through homeowner’s fees, which will result in the maintenance of clean, safe, and comfortable common areas within the community.</p>
<p>Parks, Recreation and Open Space Element</p>	
<p>GOAL PR-2: High-Quality Parks. High-quality parks and recreational facilities that promote community health and are safe and convenient to access.</p>	
<p>PR-2.8 <u>New development</u>. Ensure that new residential developments provide adequate on-site recreational and open space amenities consistent with the values and standards of the community and the needs of new development. Require projects to establish mechanisms, such as a Community Facilities District, to adequately maintain new parks and recreational facilities.</p>	<p>Consistent. The Specific Plan provides for the creation of a clubhouse and central amenity area, which will include an outdoor lawn, a multi-purpose event lawn, sports courts, water features, an outdoor kitchen and firepit area, a terrace, and an outdoor social area associated with a planned coffee bar. One of the plan’s goals is to facilitate the development of an active indoor-outdoor lifestyle in which all residents have safe and convenient access to a variety of indoor and outdoor recreational amenities.</p>
<p>GOAL PR-3: Quality Trails Network. Trails sited to ensure compatibility with natural resource protection and to encourage physical activity.</p>	
<p>PR-3.3 <u>Dedicate space for trails</u>. Require new development projects to dedicate easements for trails, trailheads, and other needed improvements, where appropriate. Dedications may include paseos, urban trails, greenways, and/or Class I bicycle facilities that connect to centers, schools, parks, and open space areas. Seek opportunities to enhance them with informational kiosks, public art, outdoor fitness equipment, and rest areas.</p>	<p>Consistent. The Specific Plan includes the provision of a network of connective open space corridors to be integrated throughout the project as a unifying design feature, referred to in the Plan as pedestrian trails or “paseos,” as well as connecting on-street sidewalks. These design features provide multiple pedestrian access points to destinations within the community and to public sidewalks and trails on Avenue 40, Madison Street, Jefferson Street, Avenue 38 and Avenue 39. Pedestrian access to public trails and sidewalks serves to connect the proposed development to existing neighborhoods and public facilities located in close proximity to the Specific Plan area.</p>

**TABLE 5.9-3
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Relevant General Plan Policies	Specific Plan Consistency
Conservation Element	
GOAL CE-2: Water Conservation. Sustainable domestic water facilities and water conservation measures to effectively meet current and future demand.	
<p>CE-2.</p>	<p>Consistent. The Specific Plan explicitly requires drought-tolerant landscaping comprised of native desert plants in order to support its commitment to water conservation. Through ensuring that all plant materials used for both common and individual residential lots are consistent with the “desertscape” theme, the Project will be less water-intensive than if it were designed to feature traditional landscaping such as grassy lawns and non-native deciduous trees. In addition, the Project includes installation of a recycled water system for irrigating common area landscaping throughout the community.</p>
<p>CE-2.3 <u>New development requirements.</u> Require new development projects to implement water conservation measures that are equivalent to or exceed CalGreen Tier One or other applicable standards in effect at the time of development.</p>	<p>Consistent. The Project and all buildings constructed will be subject to the provisions of the CalGreen building code, include those related to water conservation.</p>
<p>CE-2.4 <u>Drought-tolerant landscaping.</u> Exceed State landscaping water efficiency standards by requiring the use of drought tolerant landscaping, minimizing the use of turf, and encouraging the retrofitting of existing irrigation systems</p>	<p>Consistent. The Specific Plan explicitly requires drought-tolerant landscaping comprised of native desert plants in order to support its commitment to water conservation. Through ensuring that all plant materials used for both common and individual residential lots are consistent with the “desertscape” theme, the Project will be less water-intensive than if it were designed to feature traditional landscaping such as grassy lawns and non-native deciduous trees. In addition, the Project includes installation of a recycled water system for irrigating common area landscaping throughout the community.</p>
<p>CE-4.5 <u>New development requirements.</u> Ensure that new development incorporates and maintains street trees and parking lot plantings as required, and work with residents and businesses to retain healthy trees as part of Indio’s streetscape.</p>	<p>Consistent. The Specific Plan’s design guidelines state that all local and collector streets will feature extensive landscaping consistent with the Project’s “desertscape” theme. The neighborhood’s frontages with adjacent arterial streets, including Avenue 38, Avenue 40, Madison Street, and Jefferson Street will feature an expansive landscape setback, reflecting a drought tolerant, natural dry concept that will fit into the low desert environment.</p>
<p>CE-7.6 <u>Native plants.</u> Incorporate native desert plant materials into new development projects to the extent possible and feasible.</p>	<p>Consistent. The Specific Plan landscape guidelines require all plant material selected for use in the development of the Project will reflect the “desertscape” theme, utilizing “water efficient” plant materials</p>

**TABLE 5.9-3
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Relevant General Plan Policies	Specific Plan Consistency
	<p>and a state-of-the-art irrigation system so as to reduce the Project’s water intensity. Plants selected for use in the development of the Project were chosen for their appropriateness to the project theme, climatic conditions, soil conditions, and concern for maintenance. Included among the plant materials selected for the Project are desert flowering trees, palm trees, desert shrubs and ground cover.</p>
Safety Element	
<p>GOAL SE-1: Police Services. Excellent law enforcement and a reduction in criminal activities and focus on community policing.</p>	
<p>SE-1.4 <u>Crime Prevention Through Environmental Design</u>. Promote Crime Prevention Through Environmental Design (CPTED) concepts, including, but not limited to:</p> <ul style="list-style-type: none"> • Controlling access by creating real and perceptual barriers to entry and movement through the use of fences or landscaping to define site boundaries, clearly defined pathways to guide movement, gates or doors to limit access, and signs to define appropriate activities. • Maximizing opportunities to see and be seen through the use of lighting, windows, building orientation and location, proper selection of landscaping materials and regular maintenance, furniture arrangements, surveillance equipment, or other security or design measures. <p>Clearly defining ownership and encouraging maintenance of properties through measures such as landscaping, front porches, fencing, variations in paving materials, or other elements to distinguish between private and public spaces. Display signs to establish ownership and keep buildings, yards, gardens, sidewalks, and other features well maintained, clean, and in working order.</p>	<p>Consistent. The Specific Plan, through its provision for the creation of a robust network of pedestrian trails, a highly activated central amenity area, and building designs that emphasize orientation towards the street, would result in active public spaces and many “eyes on the street.” The Plan further includes walls and fences to be constructed in various settings throughout the community. The Project is to be a gated community with a perimeter community wall that provides safety and delineation of space, as well as walls delineating public open space areas and individual residential lots. The Project will ultimately be maintained by a homeowner’s association to be funded through homeowner’s fees, which will result in the maintenance of clean, safe, and comfortable common areas within the community.</p>
<p>GOAL SE-4: Seismic Hazards. A community that is minimally affected and less vulnerable to earthquakes and seismic hazards.</p>	
<p>SE-4.1 <u>Development plan review</u>. Require all new structures to be designed in accordance with the most recent California Building Code adopted by City Council, including the provisions regarding seismic loads, lateral forces and grading and not built across the trace of an active fault.</p>	<p>Consistent. All structures will be designed and constructed pursuant to the Specific Plan will be required to be compliant with the CalGreen building code. The Geology and Soils analysis in this EIR determined the Project site does not contain any active faults or fault traces. The geotechnical analysis identifies provisions regarding seismic loads, lateral forces and grading.</p>

**TABLE 5.9-3
CITY OF INDIO GENERAL PLAN ANALYSIS**

Relevant General Plan Policies	Specific Plan Consistency
<p>GOAL SE-5: Community Resilience. A community that is prepared for the potential impacts of climate change.</p>	
<p>SE-5.5 <u>Neighborhood and building cooling.</u> Encourage new development and redevelopment to take steps to reduce the impacts of extreme heat events, including:</p> <ul style="list-style-type: none"> • Protect the City’s healthy trees and plant new ones to provide shade, increase carbon sequestration and purify the air. • Shade public parks and open spaces, including bus shelters. Support residential energy efficiency and weatherization programs. • Design buildings to use less cooling through passive heat and cooling techniques. 	<p>Consistent. The Specific Plan architectural guidelines address including patio trellises, pergolas, roof overhangs, and other exterior structures, as well as passive solar design, in order to shade and cool outdoor areas of the community, reduce building energy intensity, and create a comfortable outdoor environment throughout the planned development.</p>
<p>GOAL SE-6: Flood Hazards. A community that is minimally disrupted by flooding and inundation hazards.</p>	
<p>SE-6.3 <u>Hydrological studies in new development.</u> Require new development proposals to include as a condition of approval, hydrological and hydraulic studies prepared by a state-certified engineer with expertise in these kinds of studies, that assess the impact the new development will have on the flooding potential of existing development down-gradient. The studies shall provide mitigation measures to reduce this impact to an acceptable level.</p>	<p>Consistent. A hydrology study has been prepared that meets the standards of the City and the Coachella Valley Water District. The drainage master plan included in the Specific Plan was designed to meet all applicable drainage standards.</p>

SCAG RTP/SCS Analysis

The 2020 SCAG RTP/SCS is an advisory document to local agencies in the southern California region for their information and voluntary use while preparing local plans and handling local issues of regional significance. **Table 5.9-4: SCAG 2020 RTP/SCS Analysis**, provides an assessment of the Project’s relationship to regional goals pertaining to issues of environmental concern contained in various chapters of the RTP/SCS. The analysis contained in **Table 5.9-4** concludes that the Project would be consistent with the RTP/SCS goals. Therefore, implementation of the Project would not result in significant land use impacts due to inconsistency with the RTP/SCS goals. Accordingly, impacts would be less than significant.

TABLE 5.9-4 SCAG 2020 RTP/SCS ANALYSIS	
Goals and Policies	Consistency Analysis
Goal 1: Encourage regional economic prosperity and global competitiveness.	Consistent. This Goal is directed towards actions taken by SCAG and the City and does not apply to the Project. Nonetheless, the Project would enhance the prosperity of the neighborhood through the creation of up to 1,500 homes, providing residential opportunities to the community and additional residents to support local businesses.
Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.	Consistent. The Project would be consistent with the City of Indio General Plan, including its Mobility Element. The traffic analysis conducted pursuant to CEQA requirements finds that the Project would have a less than significant impact on the City’s transportation system, and that impacts regarding VMT generation would also be less than significant. The Project thus would not conflict with efforts to improve mobility, accessibility, reliability, and travel safety for people and goods.
Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.	Consistent. While not necessarily applicable to an individual development project, the Project would support this goal by improving the viability of alternative forms of transportation in the area immediately surrounding the Project site. The Project includes the development of a network of connective open space corridors that would facilitate improved access to sidewalks, trails, and protected bicycle lane facilities that have been proposed by the City. The Project is designed in such a way that a variety of transportation options, including walking, biking, and the use of golf carts are available to meet the mobility needs of residents and visitors.
Goal 4: Increase person and goods movement and travel choices within the transportation system.	Consistent. While not necessarily applicable to an individual development project, the Project would support this goal by improving local access to alternative forms of transportation, including walking, biking, and the use of golf carts, with appropriate design considerations to account for future population growth and multimodal choices.
Goal 5: Reduce greenhouse gas emissions and improve air quality.	Consistent. The Project involves the creation of a new residential community for residents aged 55 and above that provides a number of transportation alternatives to meet the needs of this demographic group while reducing the proportion of trips requiring the use of a private vehicle. The Project’s provisions for safe and convenient walking, biking, and the use of golf carts to reach social, recreation, and entertainment amenities supports the goal of reducing GHG

**TABLE 5.9-4
SCAG 2020 RTP/SCS ANALYSIS**

Goals and Policies	Consistency Analysis
	emissions and improving air quality through promoting the use of these alternative modes among residents of the proposed community.
Goal 6: Support healthy and equitable communities.	Consistent. The Project would support healthy, active lifestyles among residents through the provision of a network of pedestrian amenity trails, bicycle facilities, and common area facilities that will include a fitness center, outdoor pool, and sports courts.
Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Consistent. This policy is directed towards SCAG actions to support integrated regional development patterns. However, the Project is an infill development that is integrated with the existing transportation network, and thus would support this goal. The Project would further be consistent with the City of Indio General Plan, supporting the City's overall vision for regional development.
Goal 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Not Applicable. This policy is directed towards SCAG actions to leverage the use of new transportation technologies using data-driven solutions.
Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.	Consistent. The Project consists of up to 1,500 homes for residents aged 55 and above that provides housing choices for this demographic group that would not otherwise be available. The Project would include a network of pedestrian, bicycle, and golf cart accessible trails that would provide a range of transportation choices in the proposed neighborhood and surrounding area beyond the use of private vehicles. The Project would also provide access to a protected bike lane proposed for Madison Street by the City should it ultimately be constructed.
Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.	Consistent. While the Project site was formerly used for agricultural purposes, none of this land is actively used for agriculture, and its location surrounded by residential neighborhoods precludes such uses from being re-initiated in the future. Further, analysis conducted as part of the Biological Resources section of this EIR has found that any impacts the Project may have on natural lands or sensitive habitats would be less than significant.

Source: SCAG, Connect SoCal, 2020-2045 RTP/SCS, September 2020.

Coachella Valley Conservation Commission Analysis

The City of Indio is a participant and permittee in the CVMSHCP and has recognized the value of biological resources for their contribution to residents' quality of life and provision of other benefits.⁵ The CVCC, which oversees and manages the CVMSHCP, has adopted a development impact fee structure which helps fund and implement conservation efforts of the CVMSHCP, which has been codified in Section 3.29.147 of the City's Municipal Code. As discussed in **Section 5.3: Biological Resources** of this Draft EIR, payment of the CVMSHCP Conservation Fee, as required by Mitigation Measure **(MM) BIO-3**, by the Project

⁵ City of Indio. *City of Indio General Plan*. Adopted September 2019. "Chapter 3: Land Use and Urban Form." Page 3-28.

proponent prior to issuance of a grading permit would mitigate the potential impact of the Project on sensitive plant and wildlife species addressed by the CVMSHCP, which are identified as present or likely to be present within the Project Site. These species include Coachella Valley milk-vetch, Coachella giant sand treader cricket, Palm Springs pocket mouse, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, and Coachella Valley round-tailed ground squirrel. The Project would not conflict with the CVMSHCP and impacts would be less than significant.

CUMULATIVE IMPACTS

Cumulative impacts would be less than significant, and the Project would not have a considerable contribution to potential land use impacts. Development of the Project, in conjunction with other cumulative development in the area permitted by the City's General Plan, would not result in citywide and regional land use and planning impacts. Furthermore, as analyzed in detail above, the Project would be consistent with applicable goals and policies of the City's General Plan.

The proposed uses within the Project Site would be consistent and compatible with existing and planned land uses surrounding the Project Site, including the existing predominantly residential uses to the north, east, and south and residential and public facility uses to the west. Therefore, development of the Project would create a cohesive community of residential uses that is well-connected with the surrounding community, thereby contributing to the development of a compatible infill neighborhood within the City of Indio.

As with the Project, related projects and other future growth would be subject to compliance with the local and regional plans reviewed in this section. Therefore, implementation of related projects in accordance with plans would not combine with the Project to result in potentially significant cumulative land use impacts. Cumulative impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE

No significant impacts have been identified and no mitigation measures are necessary.

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to result in noise impacts within the Project Site and surrounding communities. This evaluation uses procedures and methodologies specified by the California Department of Transportation (Caltrans), the Federal Transit Administration (FTA), and the Federal Highway Administration (FHWA). Noise monitoring and roadway noise modeling datasheets are included in **Appendix J: Noise Worksheets** of this Draft EIR.

Prior to the preparation of this Draft EIR, an Initial Study (included in **Appendix A** of this Draft EIR) was prepared using the CEQA Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with noise. The following Initial Study screening criterion related to noise does not require additional analysis in this Draft EIR:

- Potential impacts related to the 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 two miles of a public airport or public use airport were evaluated and determined to have “No Impact” in the Initial Study. The Project Site is not within two miles of a public airport. Therefore, this issue is not addressed any further within this section.

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR. Please see **Section 9.0: Terms, Definitions, and Acronyms** for a glossary of terms, definitions, and acronyms used in this Draft EIR.

Regulatory Setting

Federal

Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) has set a goal of 65 dB(A) CNEL as a desirable maximum exterior standard for residential uses developed under HUD funding. While HUD does not specify acceptable interior noise levels, standard construction of residential uses constructed under Title 24 standards typically provides in excess of 20 dB(A) of attenuation with the windows closed. Based on this premise, the interior CNEL should not exceed 45 dB(A) CNEL.¹

¹ Code of Federal Regulations. Title 24. Sec. 51, Housing and Urban Development. Environmental Criteria and Standards (revised April 1, 2004).

Federal Transit Administration

The FTA has published a technical manual, *Transit Noise and Vibration Impacts Assessment*, that provides ground-borne vibration impact criteria with respect to building damage during construction activities.² According to the FTA guidelines, a vibration criterion of 0.20 PPV should be considered as the significant impact level for nonengineered timber and masonry buildings. Structures or buildings constructed of reinforced concrete, steel, or timber have a vibration damage criterion of 0.50 PPV based on the FTA guidelines. Structures amplify ground-borne vibration. Wood-frame buildings, such as typical residential structures, are more affected by ground vibration than are heavier buildings. The level at which ground-borne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in **Table 5.10-1: Construction Vibration Damage Criteria**. The FTA has also adopted standards for ground-borne vibration impacts related to human annoyance, as shown in **Table 5.10-2: Ground-borne Vibration Sensitivity Criteria**. These criteria are based on extensive research that suggests humans are sensitive to vibration velocities in the range of 8 to 80 Hz.³

**TABLE 5.10-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA**

Building Category	PPV (ips)	L _v (VdB)
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Nonengineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: *Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual*, (September 2018).

Note: For Max L_v (VdB), L_v = the velocity level in decibels as measured in 1/3 octave bands of frequency over the frequency ranges of 8 to 80 Hz; VdB = vibration decibels; Hz = hertz; ips = inches per second.

2 US Department of Transportation, Federal Transit Administration (USDOT, FTA). *Transit Noise and Vibration Impact Assessment*, FTA report no. 0123 (September 2018). https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed November 2022.

3 USDOT, FTA. *Transit Noise and Vibration Impact Assessment*.

**TABLE 5.10-2
GROUND-BORNE VIBRATION SENSITIVITY CRITERIA**

Building Category	Frequent Events	Occasional Events	Infrequent Events
Category 1: High Sensitivity. Buildings where vibration would interfere with interior operations (e.g., vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and research operations).	65 VdB ¹	65 VdB ¹	65 VdB ¹
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses, such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.	75 VdB	78 VdB	83 VdB

Source: Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual, September 2018.

Note:

- ¹ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a Detailed Vibration Analysis must be performed.

State

Noise Standards

The California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure; these guidelines have been included in the State of California General Plan Guidelines, which is published and updated by the Governor's Office of Planning and Research.⁴ According to the State, an exterior noise environment up to 60 dBA CNEL and 65 dBA CNEL is "normally acceptable" for single- and multifamily residential uses, respectively, without special noise insulation requirements. In addition, noise levels up to 75 dBA CNEL are "conditionally acceptable" with special noise insulation requirements, while noise levels at 75 dBA CNEL and above are "clearly unacceptable" for residential uses. In addition, Section 65302(f) of the California Government Code requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must (1) identify and appraise noise problems in the community, (2) recognize Office of Noise Control guidelines, and (3) analyze and quantify current and projected noise levels.

DHS's Office of Noise Control has established guidelines to provide communities with noise environments that it deems to be generally acceptable based on land-use categories. These guidelines serve as a primary tool for a city to use to assess the compatibility between land uses and outdoor noise. Noise exposure for single-family uses is normally acceptable when the CNEL at exterior residential locations is equal to or below 60 dBA, conditionally acceptable when the CNEL is between 55 to 70 dBA, and normally

⁴ State of California, Governor's Office of Planning and Research. *General Plan Guidelines 2017 (2018)*. Page 374. <http://opr.ca.gov/planning/general-plan/guidelines.html>. Accessed November 2022.

unacceptable when the CNEL exceeds 70 dBA. Some overlap exists between categories. These guidelines apply to noise sources such as vehicular traffic, aircraft, and rail movements.

Vibration Standards

The California Department of Transportation (Caltrans) published its *Transportation and Construction Vibration Guidance Manual* in September 2018.⁵ The manual provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. This manual provides guidelines for assessing vibration damage potential to various types of buildings, ranging from 0.08 to 0.12 inches per second for extremely fragile historic buildings, ruins, and ancient monuments, to 0.50 to 2.0 inches per second for modern industrial and commercial buildings.

The guidance and procedures provided in the Caltrans manual should be treated as screening tools for assessing the potential for adverse effects related to human perception and structural damage. General information on the potential effects of vibration on vibration-sensitive research and advanced-technology facilities is also provided, but a discussion of detailed assessment methods in this area is beyond the manual's scope. The document is not an official policy, standard, specification, or regulation. Therefore, the vibration analysis in this Draft EIR is based on the FTA's standards and the Caltrans standards are included for informational purposes only.

State of California Building Code

California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources and where such noise sources create an exterior noise level of 60 dB(A) CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dB(A) CNEL.

California Noise Insulation Standards

The California Noise Insulation Standards⁶ require that interior noise levels from exterior sources be 45 dB(A) or less in any habitable room of a multi-residential use facility (e.g., hotels, motels, dormitories, long-term care facilities, and apartment houses, except detached single-family dwellings) with doors and windows closed. Measurements are based on CNEL or Ldn (the day-night average), whichever is consistent

5 California Department of Transportation (Caltrans). *Transportation and Construction Vibration Guidance Manual*. September 2018. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed November 2022.

6 California Code of Regulation, Title 24, sec. 3501 et seq.

with the noise element of the local general plan. Where exterior noise levels exceed 60 dB(A) CNEL, an acoustical analysis for new development may be required to show that the proposed construction will reduce interior noise levels to 45 dB(A) CNEL. If the interior 45 dB(A) CNEL limit can be achieved only with the windows closed, the residence must include mechanical ventilation that meets applicable *Uniform Building Code* (UBC) requirements.

California Department of Health Services

The State of California Department of Health Services, Environmental Health Division, has published recommended guidelines for noise and land use compatibility, referred to as the *State Land Use Compatibility Guidelines for Noise* (“*State Noise Guidelines*”). The *State Noise Guidelines* indicate that residential land uses and other noise-sensitive receptors generally should be located in areas where outdoor ambient noise levels do not exceed 65 to 70 dB(A) CNEL. According to the *State Noise Guidelines*, an exterior noise level of 60 dB(A) CNEL is considered to be “normally acceptable” for single-family, duplex, and mobile homes involving normal, conventional construction, without any special noise insulation requirements. Exterior noise levels up to 65 dB(A) CNEL are typically considered “normally acceptable” for multifamily units and transient lodging without any special noise insulation requirements. Between these values and 70 dB(A) CNEL, exterior noise levels are typically considered “conditionally acceptable” and residential construction should only occur after a detailed analysis of the noise reduction requirements and needed noise attenuation features have been included in the Project design. Exterior noise attenuation features include, but are not limited to, setbacks to place structures outside the conditionally acceptable noise contour, orienting structures so no windows are open to the noise source, and/or installing noise barriers such as berms and/or solid walls.

Regional and Local

City of Indio Noise Element

The City of Indio has established noise/land use compatibility guidelines as a planning tool to establish criteria for the acceptable total noise levels to which land uses are exposed. Proposed developments are assessed for conformance with the noise land use compatibility guidelines. **Figure 5.10-1: Noise Compatibility Guidelines** displays these guidelines, which are based on CNEL. As shown in **Figure 5.10-1**, acceptable noise levels increase as the sensitivity of the land use decreases. Once land uses are established, noise levels are regulated through the City’s noise ordinance (Chapter 95C of the Municipal Code), which establishes hourly noise level limits and enforcements procedures to restrict noise from individual noise generators.

City of Indio Noise Ordinance

The City’s Noise Ordinance minimizes noise conflicts between neighboring properties through enforcement of applicable regulations, such as the City’s Noise Control Ordinance.

According to Section 95C.06, sound amplifying equipment shall not exceed a threshold sound output of 70 decibels when measured at a distance of ten feet.

The City's Municipal Health and Safety Code set forth standards, guidelines, and procedures concerning the regulation of noise in Rancho Mirage. Section 8.45 of the Municipal Code cites the value and importance given by residents, visitors, and businesses to the exceptional quality of life and peace and quiet of the community. Pursuant to the City Noise Ordinance, the City restricts noise generated at a property from exceeding certain noise levels for extended periods of time to protect people from objectionable non-transportation noise sources.

According to Section 8.45.050, Special Provisions and Exceptions, of the City's Municipal Code, construction, alternation, repair, grading, or improvement of any building, structure, road, or improvement to real property for which a permit has been issued is exempt from the City's noise ordinance so long as construction activities occur within normal business hours (7:00 AM to 7:00 PM, except on Sundays).

ENVIRONMENTAL SETTING




Noise Descriptors

Noise levels are measured using a variety of scientific metrics. As a result of extensive research into the characteristics of noise and human response, standard noise descriptors have been developed for noise exposure analyses. All noise levels provided in this Noise Report are for outdoor conditions, unless otherwise stated specifically to be interior noise levels.

A-Weighted Sound Pressure Level (dBA): The decibel (dB) is a unit used to describe sound pressure level. When expressed in dBA, the sound has been filtered to reduce the effect of very low and very high frequency sounds, much as the human ear filters sound frequencies. Without this filtering, calculated and measured sound levels would include events that the human ear cannot hear (e.g., dog whistles and low-frequency sounds such as the groaning sounds emanating from large buildings with changes in temperature and wind). With A-weighting, calculations and sound-monitoring equipment approximate the sensitivity of the human ear to sounds of different frequencies.

Maximum Noise Level (Lmax): Lmax is the maximum or peak sound level during a noise event. The metric accounts only for the instantaneous peak intensity of the sound and not for the duration of the event. As a vehicle passes by an observer, the sound level increases to a maximum level and then decreases. Some sound level meters measure and record the maximum or Lmax level.

Sound Exposure Level (SEL): SEL, expressed in dBA, is a time-integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of 1 second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound. The standardization of discrete noise events into a 1-second duration allows calculation of the cumulative noise exposure of a series of noise events that occur over a period of time.

Land Use Category		Exterior Noise Level (CNEL)						
		50	55	60	65	70	75	80
A	Residential – single family residences, mobile homes, senior housing, convalescent homes							
B	Residential – multi-family residences, mixed-use (commercial/residential)							
C	Transient lodging – motels, hotels, resorts							
D*	Schools, churches, hospitals, nursing homes, child care facilities							
E*	Passive recreational parks, nature preserves, contemplative spaces, cemeteries							
F*	Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation							
G*	Office/professional, government, medical/dental, commercial, retail, laboratories							
H*	Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair							
	ACCEPTABLE – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.							
	CONDITIONALLY ACCEPTABLE – New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table N-2, Noise Standards. If a project cannot mitigate noise to a level deemed Acceptable, the appropriate county decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.							
	UNACCEPTABLE – New construction or development shall not be undertaken.							

SOURCE: Indio General Plan, Chapter 11-Noise - 2022

FIGURE 5.10-1

Equivalent Continuous Noise Level (Leq): Leq is the sound level, expressed in dBA, of a steady sound that has the same A-weighted sound energy as the time-varying sound over the averaging period. Unlike SEL, Leq is the average sound level for a specified time period (e.g., 24 hours, 8 hours, 1 hour). Leq is calculated by integrating the sound energy from all noise events over a given time period and applying a factor for the number of events. Leq can be expressed for any time interval; for example, the Leq representing an averaged level over an 8-hour period would be expressed as Leq(8).

Community Noise Equivalent Level (CNEL): CNEL, expressed in dBA, is a rating of community noise exposure to all sources of sound that differentiates between daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM) noise exposure. CNEL includes penalties applied to noise events occurring after 7:00 PM and before 7:00 AM, when noise is considered more intrusive. The penalized time period is further subdivided into an evening period with an addition of 5 dBA to measured or forecasted noise levels and a nighttime period with an addition of 10 dB to measured or forecasted noise levels. CNEL has been adopted by the State of California to define the community noise environment in preparing the community noise element of a General Plan.⁷

Day-Night Average Sound Level (L_{dn}): The day-night average sound level is the average noise level over a 24-hour period. The noise level measurements between the hours of 10:00 pm and 7:00 am are artificially increased by 10 dBA before averaging. Nighttime noise is weighted to take into account a decrease in community background noise of 10 dBA during this period. The evening weighting is the only difference between CNEL and day-night average sound level (DNL).

Effects of Noise on Humans

Human response to sound is highly individualized. Annoyance is the most common issue associated with community noise levels. Many factors influence the response to noise, including the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as an individual's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence the response to noise. These factors result in the reaction to noise being highly subjective, with the perceived effect of a particular noise varying widely among individuals in a community. The effects of noise can be grouped into three general categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as starting hearing loss.

⁷ State of California. *General Plan Guidelines*. 2017. http://calaverascap.com/wp-content/uploads/2017/08/OPR_COMPLETE_7.31.17.pdf. Accessed November 2022.

Noise-induced hearing loss usually takes years to develop. Hearing loss is one of the most obvious and easily quantifiable effects of excessive exposure to noise. While the loss may be temporary at first, it can become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly due to the environment is difficult to quantify. Although the major cause of noise induced hearing loss is occupational, nonoccupational sources may also be a factor.

Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. Interference with communication has proved to be one of the most important components of noise-related annoyance.

Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern or level of sleep. It can produce short-term effects, with the possibility of more serious effects on health if it continues over long periods.

Annoyance can be defined as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed previously.

Some common sounds on the dBA scale, relative to ordinary conversation, are provided in **Table 5.10-3: Common Sounds on the A-Weighted Decibel Scale**. As shown, the relative perceived loudness of sound doubles for each increase of 10 dBA, although a 10 dBA change corresponds to a factor of 10 in relative sound energy. Generally, sounds with differences of 3 dBA or less are not perceived to be noticeably different by most listeners.

Sound	Sound Level (dBA)	Subjective Evaluations
Near Jet Engine	140	
Threshold of Pain	130	Deafening
Rock music, with amplifier	120	
Thunder, snowmobile (operator)	110	
Boiler shop, power mower	100	Very Loud
Orchestral crescendo at 25 feet, noisy kitchen	90	
Busy street	80	
Interior of department store	70	Loud
Ordinary conversation, 3 feet away	60	
Quiet automobiles at low speed	50	Moderate
Average office	40	Faint

**TABLE 5.10-3
COMMON SOUNDS ON THE A-WEIGHTED DECIBEL SCALE**

Sound	Sound Level (dBA)	Subjective Evaluations
City residence	30	
Quiet country residence	20	
Rustle of leaves	10	Very Faint
Threshold of hearing	0	

Source: U.S. Department of Housing and Urban Development, *Aircraft Noise Impact - Planning Guidelines for Local Agencies*, 1972

Notes:

¹ Continuous exposure above 85 dB is likely to degrade the hearing of most people (hearing protection recommended).

² Range of Speech: 50 - 70 dB

Vibration

Vibration consists of waves transmitted through a solid medium. Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. A vibration may be a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). Most environmental vibrations consist of a composite, or “spectrum,” of many frequencies and are generally classified as broadband or random vibrations. The normal frequency range of most groundborne vibration that can be felt starts from a low frequency of less than 1 Hz to a high frequency of about 200 Hz. Vibration is often measured in terms of the peak particle velocity (PPV) in inches per second (in/sec) because it is related to the stresses that are experienced by buildings. Vibration is also measured in vibration decibels (VdB). The human threshold of perception is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Vibration levels are acceptable at approximately 85 VdB if there are an infrequent number of events per day.⁸

Vibration energy attenuates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source.⁹ High frequency vibrations reduce much more rapidly than low frequencies so that in the far-field from a source, the low frequencies tend to dominate. Soil properties also affect the propagation of vibration. When groundborne vibration interacts with a building, there is usually a ground-to-foundation coupling loss, but the vibration can also be amplified by the structural resonances of the walls and floors.¹⁰ Vibration in buildings is typically perceived as rattling of windows or of items on shelves, or the motion of building surfaces.

Groundborne vibration is generally limited to areas within a few hundred feet of certain types of construction activities, especially pile driving. Road vehicles rarely create enough groundborne vibration

⁸ Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. Pages 7-8.

⁹ California Department of Transportation. *Earthborne Vibrations (1990)*. VII-27.

¹⁰ Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. Pages 7-1, 7-2.

to be perceptible to humans unless the road surface is poorly maintained and there are potholes or bumps.¹¹ If traffic, typically heavy trucks, induces perceptible vibration in buildings, such as window rattling or shaking of small loose items, then it is most likely an effect of low-frequency airborne noise or ground characteristics. Human annoyance by vibration is related to the vibration energy and the number and duration of events, as well as the setting in which the person experiences the vibration. As discussed previously, vibration can be amplified by the structural resonances of the walls and floors of buildings. The more the events or the greater the duration, the more annoying will it be to humans.

Existing Conditions

Existing land uses around the Specific Plan site consist of relatively low-density residential development on a relatively flat landscape. Transportation, including roadways, rail, and the Bermuda Dunes Airport, represent the most dominant source of noise in the City. The most significant source of roadway noise is generated by motor vehicles travelling along I-10, SR-86, and Highway 111. Other major sources of transportation noise in the City are railroad activity from the Union Pacific rail line that runs adjacent to Indio Boulevard and airport activity from the Bermuda Dunes Airport.¹² The Project site is not located near to any of these noise sources.

Festivals and special events also generate a significant amount of noise in Indio. However, the City has established the Major Music Festival Overlay Zone around the Festival District, located at the southern end of the City between Avenue 49, Monroe Street, Avenue 52, and Madison Street, in order to monitor and adjust noise levels during major festivals. The Project site, located in the northern portion of the City, is not near the Festival Overlay Zone. Other noise sources in Indio are manufacturing and industrial operations, agricultural operations, air conditioning and other mechanical equipment, landscaping equipment, and human speech.

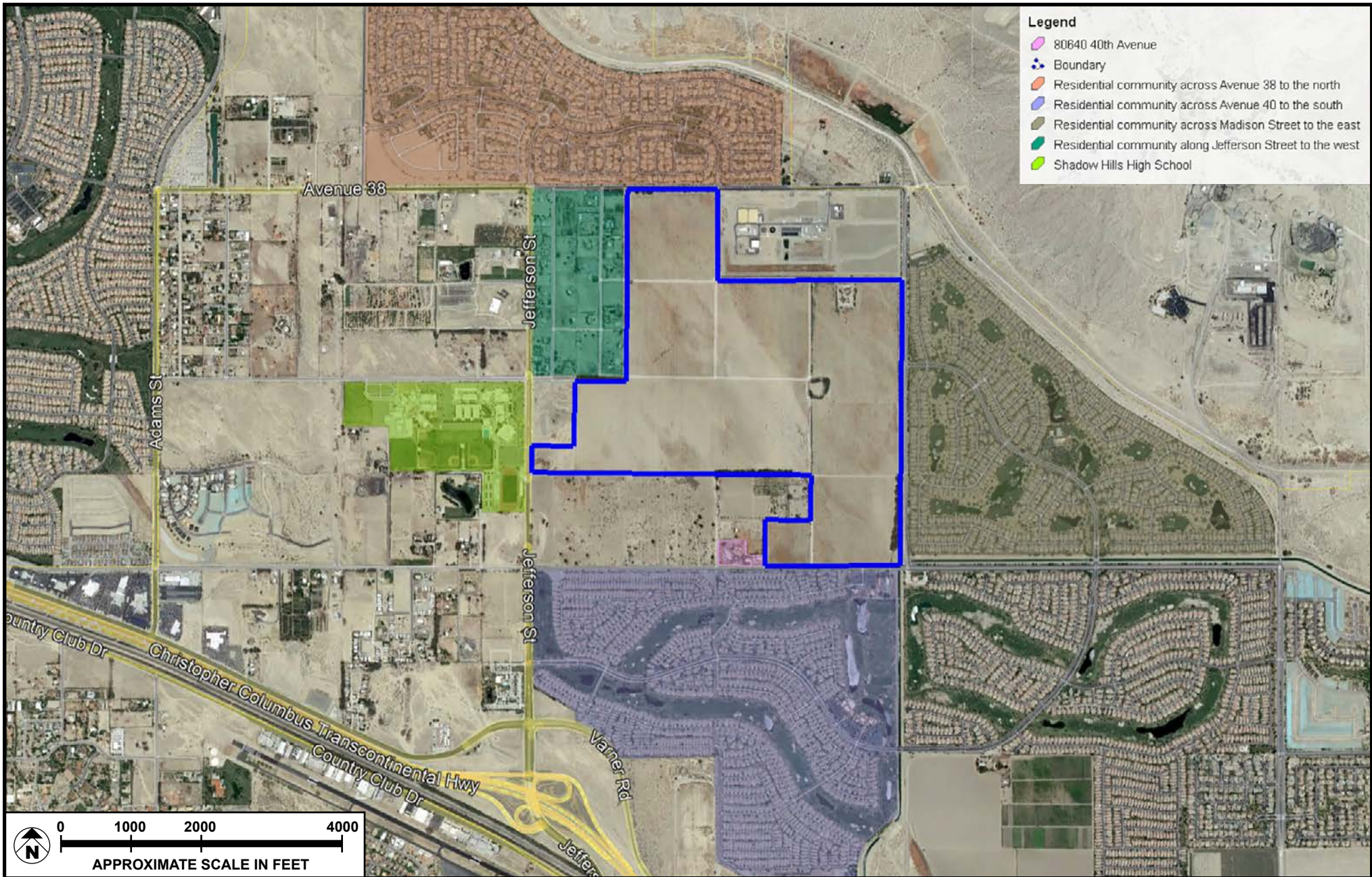
Sensitive Receptors in the Surrounding Area

Some land uses are considered more sensitive to intrusive noise than others based on the types of activities typically involved at the receptor location. Uses that are sensitive to noise include residences, schools, hospitals, senior citizen facilities, places of worship, daycare facilities, libraries, and parks.

As shown in **Figure 5.10-2: Sensitive Receptor Map**, the nearest existing noise sensitive receptors to the Specific Plan area are the residential community to the north across Avenue 38, the residential use to the south on the corner of Burr Street and Avenue 40, the residential community to the east across Madison Street and Shadow Hills High School and residential uses to the west along Tarr Road, Primrose Lane, and Jefferson Street.

11 Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. Pages 7-9.

12 City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. "Noise Element." <https://www.indio.org/home/showpublisheddocument/916/637874287886000000>. Accessed November 2022.



SOURCE: Google Earth - 2022

FIGURE 5.10-2

It is important to note, the existing residential communities located east of the Project Site across Madison Street and south of the Project Site across Avenue 40 include large, landscaped setbacks along Madison Street and Avenue 40, with a masonry wall along the rear property lines of homes. These homes are setback approximately 20 feet from these masonry block walls.

Existing Off-Site Roadway Noise Levels

In addition to the ambient noise measurements near the Project site, the existing traffic noise on local roadways in the surrounding areas was calculated to quantify the 24-hour CNEL noise levels using information provided in the traffic impact study.¹³

A total of 17 intersections were selected for the analysis of existing off-site traffic noise and the potential increases in traffic volumes from the Project site. Given that motor vehicle travel is the predominant noise source within the Project vicinity, the analysis focuses on sensitive uses located along the major roadways within the vicinity. Traffic noise levels were calculated using the Federal Highway Administration Traffic Noise Model (FHWA TNM).

Table 5.10-4: Existing Roadway Traffic Noise Levels provides the calculated CNEL for the analyzed local roadway segments based on existing traffic volumes. CNEL levels attributed to roadway traffic only range from 36.0 dBA CNEL along Madison Street, south of Avenue 40 (Intersection 6), to 69.4 dBA CNEL along Jefferson Street, south of Fred Waring Drive (Intersection 12).

In terms of the City's land use noise compatibility categories based on roadway traffic only, most locations are classified as normally acceptable, with others classified as conditionally acceptable. Specifically, the noise exposure compatibility categories for residential uses based on roadway traffic only are summarized as follows:

- **Normally acceptable**: Residential land uses located along Avenue 38, Sun City Boulevard, Avenue 40, Avenue 41, Talavera Boulevard, Madison Street, Adams Street, and Camino San Gregorio.
- **Conditionally acceptable**: Residential uses along Avenue 40, Varner Road, Jefferson Street, and Monroe Street.
- Normally unacceptable: None.
- Clearly unacceptable: None.

13 Fehr & Peers. *Pulte Homes Development North Indio Transportation Study*. June 2022. See **Appendix K**.

**TABLE 5.10-4
EXISTING ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Adjacent Land Use	Existing Roadway Noise Level (dBA CNEL)	Existing Noise Exposure Compatibility Category
Avenue 38				
1	East of Talavera Boulevard	Residential	52.7	Normally Acceptable
1	West of Talavera Boulevard	Residential	52.3	Normally Acceptable
Sun City Boulevard				
2	East of Madison Street	Residential	46.7	Normally Acceptable
2	West of Madison Street	Residential	N/A	N/A
Avenue 40				
3	East of Adams Street	Commercial	57.0	Normally Acceptable
3	West of Adams Street	Commercial	56.4	Normally Acceptable
4	East of Jefferson Street	Residential	61.6	Conditionally Acceptable
4	West of Jefferson Street	Residential	58.7	Normally Acceptable
5	East of Project Dwy/Camino San Gregorio	Residential	61.8	Conditionally Acceptable
5	West of Project Dwy/Camino San Gregorio	Residential	61.6	Conditionally Acceptable
6	East of Madison Street	Residential	62.9	Conditionally Acceptable
6	West of Madison Street	Residential	61.9	Conditionally Acceptable
Varner Road				
7	East of Jefferson Street	Vacant	66.2	Normally Acceptable
7	West of Jefferson Street	Residential	60.2	Conditionally Acceptable
I-10 WB Ramps				
8	East of Jefferson Street	Vacant	63.4	Normally Acceptable
8	West of Jefferson Street	Vacant	53.0	Normally Acceptable
I-10 EB Ramps				
9	East of Jefferson Street	Vacant	N/A	N/A
9	West of Jefferson Street	Vacant	64.3	Normally Acceptable
Indio Boulevard				
10	East of Jefferson Street	Commercial	N/A	N/A
10	West of Jefferson Street	Commercial	68.7	Normally Acceptable

**TABLE 5.10-4
EXISTING ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Adjacent Land Use	Existing Roadway Noise Level (dBA CNEL)	Existing Noise Exposure Compatibility Category
Country Club Drive				
11	East of Jefferson Street	Commercial	58.8	Normally Acceptable
11	West of Jefferson Street	Commercial	64.7	Normally Acceptable
Fred Waring Drive				
12	East of Jefferson Street	Commercial	67.2	Normally Acceptable
12	West of Jefferson Street	Commercial	68.0	Normally Acceptable
Avenue 41				
13	East of Monroe Street	Residential	58.7	Normally Acceptable
13	West of Monroe Street	Residential	N/A	N/A
Avenue 42				
14	East of Monroe Street	Vacant	62.7	Normally Acceptable
14	West of Monroe Street	Vacant	60.4	Normally Acceptable
Buena Vista Avenue				
15	East of Monroe Street	Vacant	59.9	Normally Acceptable
15	West of Monroe Street	Vacant	45.9	Normally Acceptable
I-10 WB Ramps				
16	East of Monroe Street	Vacant	56.0	Normally Acceptable
16	West of Monroe Street	Vacant	57.8	Normally Acceptable
I-10 EB Ramps				
17	East of Monroe Street	Vacant	55.2	Normally Acceptable
17	West of Monroe Street	Vacant	59.9	Normally Acceptable
Talavera Blvd/Project Driveway				
1	North of Avenue 38	Residential	43.8	Normally Acceptable
1	South of Avenue 38	Residential	N/A	N/A
Madison Street				
2	North of Sun City Boulevard	Residential	53.5	Normally Acceptable
2	South of Sun City Boulevard	Residential	55.1	Normally Acceptable

**TABLE 5.10-4
EXISTING ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Adjacent Land Use	Existing Roadway Noise Level (dBA CNEL)	Existing Noise Exposure Compatibility Category
6	North of Avenue 40	Residential	58.9	Normally Acceptable
6	South of Avenue 40	Residential	36.0	Normally Acceptable
Adams Street				
3	North of Avenue 40	Residential	59.2	Normally Acceptable
3	South of Avenue 40	Commercial	59.4	Normally Acceptable
Jefferson Street				
4	North of Avenue 40	Residential	65.2	Conditionally Acceptable
4	South of Avenue 40	Residential	65.2	Conditionally Acceptable
7	North of Varner Road	Residential	65.2	Conditionally Acceptable
7	South of Varner Road	Vacant	66.2	Normally Acceptable
8	North of I-10 WB Ramps	Vacant	66.2	Normally Acceptable
8	South of I-10 WB Ramps	Vacant	67.7	Normally Acceptable
9	North of I-10 EB Ramps	Vacant	67.7	Normally Acceptable
9	South of I-10 EB Ramps	Vacant	68.8	Normally Acceptable
10	North of Indio Boulevard	Commercial	68.8	Normally Acceptable
10	South of Indio Boulevard	Commercial	66.0	Normally Acceptable
11	North of Ave 42/Country Club Dr	Commercial	67.8	Normally Acceptable
11	South of Ave 42/Country Club Dr	Commercial	68.0	Normally Acceptable
12	North of Fred Waring Dr	Commercial	69.1	Normally Acceptable
12	South of Fred Waring Dr	Commercial	69.4	Normally Acceptable
Project Dwy/Camino San Gregorio				
5	North of Avenue 40	Residential	N/A	N/A
5	South of Avenue 40	Residential	41.7	Normally Acceptable
Monroe Street				
13	North of Avenue 41	Residential	61.0	Conditionally Acceptable
13	South of Avenue 41	Residential	60.9	Conditionally Acceptable
14	North of Avenue 42	Vacant	61.7	Normally Acceptable

**TABLE 5.10-4
EXISTING ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Adjacent Land Use	Existing Roadway Noise Level (dBA CNEL)	Existing Noise Exposure Compatibility Category
14	South of Avenue 42	Commercial	62.9	Normally Acceptable
15	North of Buena Vista Avenue	Vacant	63.1	Normally Acceptable
15	South of Buena Vista Avenue	Vacant	65.1	Normally Acceptable
16	North of I-10 WB Ramps	Vacant	63.9	Normally Acceptable
16	South of I-10 WB Ramps	Vacant	64.1	Normally Acceptable
17	North of I-10 EB Ramps	Vacant	64.2	Normally Acceptable
17	South of I-10 EB Ramps	Vacant	64.3	Normally Acceptable

Source: Refer to *Appendix J* for roadway noise worksheets.

Existing Vibration Conditions

The primary source of existing groundborne vibration in the vicinity of the Project Site is vehicle traffic on Avenue 38, Jefferson Street, Avenue 40, and Madison Street. According to the FTA,¹⁴ typical road traffic-induced vibration levels are unlikely to be perceptible by people. In part, FTA indicates that “it is unusual for vibration from traffic including buses and trucks to be perceptible, even in a location close to major roadways.” Therefore, based on FTA published vibration data, the existing ground vibration environment in the Project vicinity would be below the perceptible levels. Trucks and buses typically generate vibration velocity levels of approximately 63 VdB (at 50 feet distance) and these levels could reach 72 VdB when trucks and buses pass over bumps in the road.

ENVIRONMENTAL IMPACTS

Threshold of Significance

The CEQA Guidelines include thresholds to determine the significance of noise impacts (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact if it would result in the:

Threshold 5.10-1: 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.

Based on State and local noise criteria, the following would be considered significant:

- Noise generated by the Project would result in stationary equipment (non-transportation) noise that results in a nuisance at noise sensitive receptors based on stationary noise limits of the Municipal Code.
- New noise sensitive uses would be located in a noise environment that exceeds the State’s noise compatibility guidelines. Similar to State guidelines, it is the policy of the City to require new residential development to achieve an interior noise environment of 45 dBA CNEL or exterior noise levels at single family residential noise sensitive areas to 65 dBA CNEL.

Based on local noise criteria established in the City’s General Plan, the following would be considered significant:¹⁵

- An increase of 3 dBA or greater in traffic noise levels that occur from project-related activities would be considered significant if the resulting noise levels exceeded the Noise Compatibility Matrix for “acceptable” exterior noise levels.
- An increase of 5 dBA or less in traffic noise levels that occur from project-related activities would not be considered significant if the resulting noise levels remain below the “acceptable” thresholds

¹⁴ Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual*. September 2018.

¹⁵ City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. “Chapter 11 Noise.” Page 11-7. <https://www.indio.org/home/showpublisheddocument/916/637874287886000000>. Accessed December 2022.

established by the State and City. Increases in traffic noise greater than 5 dBA would be considered to be significant.

Based on local noise criteria established by the City, the following would be considered significant:

- Construction activities occurring outside the normal business hours of 7:00 AM and 7:00 PM, except Sundays and holidays.

The City does not specify a numerical noise level limit applicable to construction activities. For this reason, the FTA's Transit Noise and Vibration Impact Assessment manual is used a screening tool to assess the potential impacts related to construction noise. Impacts related to construction would be considered significant if noise levels exceed 80 dBA Leq at off-site residential uses.

Threshold 5.10-2: Generation of excessive groundborne vibration or groundborne noise levels.

Based on vibration criteria established by the Federal Transit Administration, the following would be considered significant:

- Construction equipment would produce levels exceeding 0.5 PPV at the nearest off-site reinforced-concrete, steel, or timber building.
- Construction equipment would produce perceptible levels of vibration (78 VdB) during the daytime at off-site vibration sensitive structures.

Methodology

Construction

Construction within the Specific Plan would occur over 96 months beginning March 2024 through March 2032. Construction of the proposed residential development would occur in clusters of 14 to 20 residential units on approximately 3 acres. Construction activities would include the following: (1) Mass Grading/Off-Site Street Improvements; (2) Precise Grading; (3) Construction of Homes; (4) On-Site Paving; and (5) Finishings (Paint, Landscaping, etc.).

On-Site Construction Activities

Construction activities typically generate noise from the operation of a variety of equipment types. Noise impacts from on-site construction activities and staging of construction trucks were evaluated by determining the noise levels generated by different types of construction activity and calculating the construction-related noise level at nearby noise-sensitive receptor locations. The actual noise level would vary, depending upon the equipment type, model, the type of work activity being performed, and the condition of the equipment.

In order to calculate construction noise levels, hourly activity, or utilization factors (i.e., the percentage of normal construction activity that would occur, or construction equipment that would be active, during each hour of the day) are estimated based on the temporal characteristics of other previous and current construction projects. The hourly activity factors express the percentage of time that construction

activities would emit average noise levels. Typical noise levels for each type of construction equipment were obtained from the FHWA Roadway Construction Noise Model.¹⁶

An inventory of construction equipment, including the number and types of equipment, which would be operating simultaneously within the Specific Plan areas, was identified for each phase/component of construction, and shown in **Table 5.10-5: Anticipated Construction Equipment by Phase**. It is unlikely that all pieces of construction equipment identified in **Table 5.10-5** would operate simultaneously in any single location during construction because equipment is generally operated only when needed and space constraints limit the equipment that can be used at any one time in a specific location. As nearly all of the Project construction equipment is mobile and will move around the site and the fact that the analysis evaluates noise occurring over a one-hour period (Leq), the modeling accounted for the anticipated construction phases and overlapping conditions of those phases are conservatively assumed that all of the construction equipment operating on-site during each construction phase (including overlapping phases) would be located at the location closest to the applicable sensitive receptor. Therefore, this modeling provides a reasonably conservative calculation of the maximum noise levels generated during construction.

Construction Phase	Equipment Type	Quantity	Usage (%)	Noise Level at 50 feet (dBA Leq-1hour)	Calculated Average Noise Level (dBA Leq-1hour)
Mass Grading	Graders	3	40	85.8	86.7
	Pumps	1	20	77.9	
	Dozers	3	40	82.5	
	Scrapers	20	40	92.6	
	Tractors/Loaders/Backhoes	3	40	84.8	
	Water Trucks	4	40	77	
Precise Grading	Dumpers/Tenders	5	40	79.5	81.6
	Tractors/Loaders/Backhoes	2	40	83.0	
Building Construction	Air Compressors	3	40	78.5	81.3
	Cement and Mortar Mixers	5	40	81.8	
	Forklifts	2	50	85.0	
	Generator Sets	2	50	80.6	
	Water Trucks	2	40	74.0	
Paving	Cement and Mortar Mixers	5	40	81.8	80.2
	Graders	2	40	84.0	
	Paving Equipment	1	50	74.2	
	Plate Compactors	1	20	76.2	
	Rollers	2	20	76.0	
	Tractors/Loaders/Backhoes	2	40	83.0	
	Water Trucks	2	40	74.0	

¹⁶ USDOT. *FHWA Roadway Construction Noise Model Final Report*. January 2006. https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf. Accessed November 2022.

**TABLE 5.10-5
ANTICIPATED CONSTRUCTION EQUIPMENT BY PHASE**

Construction Phase	Equipment Type	Quantity	Usage (%)	Noise Level at 50 feet (dBA Leq-1hour)	Calculated Average Noise Level (dBA Leq-1hour)
Finishing	Air Compressors	3	40	78.5	78.5

Source: FHWA Roadway Construction Noise Model (RCNM) version 1.1.
Refer to Appendix J for construction noise worksheets.

The calculated maximum noise levels provided above were inputted into the noise model SoundPLAN,¹⁷ which generates computer simulations of noise propagation from sources such as construction noise. SoundPLAN forecasts noise levels at specific receptors using sound power data and three-dimensional topographical data.

Noise levels generated by on-site construction equipment can be reduced via specific noise control measures including the following: (1) muffler requirements; (2) equipment modifications that reduce noise levels; and (3) maintenance and operational requirements. These noise control measures can be used separately or in combination in order to reduce the noise levels generated by on-site construction equipment.

Most on-site construction-related noise originates from equipment powered by either gasoline or diesel engines. A large part of the noise emitted is due to the intake and exhaust portions of the engine cycle. Reducing noise from this source can be achieved via muffler systems. This noise control strategy would include the replacement of worn mufflers and retrofitting on-site construction equipment where mufflers are not in use. Using optimal muffler systems on on-site construction equipment reduces construction noise levels by 10 dBA or more.¹⁸

Another effective method of diminishing noise levels associated with individual pieces of construction equipment is by modifying the equipment. Modifications such as the dampening of metal surfaces is effective in reducing on-site construction equipment noise levels. These modifications are typically done by the manufacturer or with factory assistance. Noise reductions of up to 5 dBA are achieved using dampening materials.¹⁹

Additionally, faulty, or damaged mufflers, loose engine parts, rattling screws, bolts, or metal plates all contribute to increasing the noise level of on-site construction equipment. By regularly inspecting on-

¹⁷ SoundPLAN model is in compliance with ISO 9613-2 standards for assessing attenuation of sound propagating outdoors and general calculation method.

¹⁸ FHWA. *Special Report—Measurement, Prediction, and Mitigation*. Updated June 2017.
https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm. Accessed November 2022.

¹⁹ FHWA. *Special Report—Measurement, Prediction, and Mitigation*. Updated June 2017.
https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm. Accessed November 2022.

site construction equipment for these conditions and making adjustments to the equipment as necessary can also reduce noise levels generated by on-site construction equipment.

Off-Site Construction Traffic

The analysis of construction traffic noise impacts focuses on off-site areas by: (1) identifying major roadways that may be used for construction worker commute routes or truck haul routes; (2) generally identifying the nature and location of noise-sensitive receptors along those routes; and (3) evaluating the traffic characteristics along those routes, specifically as related to existing traffic volumes. Construction traffic volume and road parameter data would be input into the FHWA TNM model to calculate average noise levels for these trips. Construction trucks staging and hauling route noise impacts would be evaluated by determining the noise levels generated by different types of construction activity, calculating the construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise).

Construction Equipment Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration.

Impacts due to construction activities were evaluated by identifying vibration sources (i.e., construction equipment), measuring the distance between vibration sources and surrounding structure locations, and making a significance determination.

For quantitative construction vibration assessments related to building damage and human annoyance, vibration source levels for construction equipment is taken from the FTA *Transit Noise and Vibration Impact Assessment Manual*. Building damage would be assessed for each piece of equipment individually and assessed in terms of peak particle velocity. Ground-borne vibration related to human annoyance is assessed in terms of rms velocity levels.

The vibration source levels for various types of equipment are based on data provided by the FTA.

Operation

Roadway Noise

Traffic noise levels were modeled using the FHWA TNM. The FHWA TNM calculates noise associated with a specific line source and the results characterize noise generated by motor vehicle travel along a specific roadway segment. The traffic noise impact analysis is based on the 24-hour CNEL noise descriptor and incorporates traffic volumes, vehicle mix, posted speed limits, roadway geometry, and site conditions. Future conditions take into account the roadway networks consistent with the 2020 Southern California

Association of Governments (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). Noise levels were evaluated with respect to the following traffic scenarios:

- Existing Conditions;
- Near-Term (Year 2030) Without and With Project Conditions; and
- Cumulative (Year 2045) Without and With Project Conditions.

Noise impacts due to off-site motor vehicle travel were analyzed by comparing the projected increase in traffic noise levels from without Project conditions to with Project conditions to the applicable significance criteria. Future conditions include traffic volumes from future ambient growth, related projects, and Proposed Project.

Operation Vibration

The majority of the Project's operational-related vibration sources, such as mechanical and electrical equipment, would incorporate vibration attenuation mounts, as required by the particular equipment specifications. Therefore, operation of the Project would not increase the existing vibration levels in the immediate vicinity of the Project and, as such, vibration impacts associated with the Project would be minimal. Therefore, the ground borne vibration analysis is limited to Project-related construction activities.

Project Impacts

Threshold 5.10-1: 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?

Construction

On-Site Construction Equipment

Noise from Project construction activities would be affected by the amount of construction equipment, the location of this equipment, the timing and duration of construction activities, and the relative distance to noise-sensitive receptors. Construction activities that would occur during the construction phases would generate both steady-state and episodic noise that would be heard both on and off the Project site. Each construction phase involves the use of different types of construction equipment and, therefore, has its own distinct noise characteristics.

The construction equipment reference noise levels provided in **Table 5.10-5** above are based on measured noise data compiled by the FHWA and would occur when equipment is operating under full power conditions. However, equipment used on construction sites typically operate at less than full power. The acoustical usage factor is the percentage of time that each type of construction equipment is anticipated to be in full power operation during a typical construction day. These values are estimates and will vary based on the actual construction process and schedule.

Construction equipment operates at its noisiest levels for certain percentages of time during operation. As such, equipment would operate at different percentages over the course of an hour.²⁰ During a construction day, the highest noise levels would be generated when multiple pieces of construction equipment are operated concurrently.

To characterize construction-period noise levels, the (hourly Leq) noise level associated with each construction stage was calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment operating simultaneously.

The estimated construction noise levels were calculated for each of the analyzed receptors during each of the construction phases in which construction equipment was assumed to be operating simultaneously, given the physical size of the Specific Plan site and logistical limitations, and with the noise equipment located at the construction area nearest to the affected receptors collectively serve to result in a conservative impact analysis. This is considered a conservative evaluation because construction of the Project would typically use fewer pieces of equipment simultaneously at any given time, as well as operating throughout the construction site (i.e., most of the time construction equipment would be operating at distances further away from the off-site receptors than that assumed in the forecasting of construction noise levels). As such, the construction would often generate lower noise levels than reported herein.

Table 5.10-6: Forecasted Noise Impacts Associated with On-Site Construction Activities presents the noise impacts that are forecasted to occur at each of the receptor sites. As discussed above, it is unlikely that all pieces of construction equipment would operate simultaneously in any single location during construction because equipment is generally operated only when needed and space constraints limit the number of pieces of equipment that can be used at any one time in a specific location. However, the modeling conservatively assumed that all of the construction equipment operating on-site during each construction phase would be located at the location closest to the nearby sensitive receptor.

As shown in **Table 5.10-6**, average noise levels at the property boundary during construction would range between 68.0 dBA Leq-1hour at the scattered residential area along Jefferson Street between Avenue 38 and Avenue 39 to the west during the finishing phase to 78.7 dBA Leq-1hour at the residential community across Madison Street to the east during the mass grading phase. Noise from construction would not exceed the significance criteria of 80 dBA Leq at any of the noise sensitive uses located around the Project Site.

²⁰ Federal Highway Administration. *Traffic Noise Model (2006)*.

**TABLE 5.10-6
FORECASTED NOISE IMPACTS ASSOCIATED WITH ON-SITE CONSTRUCTION ACTIVITIES**

Location	Calculated Noise Level (Leq-1hour) by Construction Phase					Exceeds Significance Threshold?
	Mass Grading	Precise Grading	Building Construction	Paving	Finishing	
Residential community across Avenue 38 to the north	78.0	72.9	72.6	71.5	69.8	No
80640 40 th Avenue	79.2	74.1	73.8	72.7	71.0	No
Residential community across Avenue 40 to the south	78.7	73.6	73.3	72.2	70.5	No
Residential community across Madison Street to the east	78.6	73.5	73.2	72.1	70.4	No
Residential community along Jefferson Street to the west	76.2	71.1	70.8	69.7	68.0	No
Shadow Hills High School along Jefferson Street to the west	76.7	71.6	71.3	70.2	68.5	No

Refer to *Appendix J for Construction Noise Worksheets*.

City of Indio's General Plan Policy NE-3.4 requires development to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity during all phases of construction. Consistent with this policy Mitigation Measure **MM NOI-1** requires the use of optimal muffler systems on all equipment which would achieve a reduction of 10 dBA or more. Additionally, **Mitigation Measure MM NOI-1** would also require the following: (1) ensure all construction equipment is properly maintained such that no additional noise due to worn or improperly maintained parts is generated; and (2) ensure all construction equipment incorporates features that dampen metal surfaces and minimize metal-to-metal contact such that a noise reduction of up to 5 dBA is achieved.²¹ These combined measures would reduce construction noise levels by a minimum of 15 dBA. **Mitigation Measure MM NOI-1** would also result in additional reductions that have conservatively not been quantified for the purposes of this analysis. Specifically, **MM NOI-1** would require the following: (1) implement appropriate noise reduction measures when construction operations occur adjacent to off-site occupied residential areas; (2) locate staging areas on-site to maximize the distance between staging areas and off-site occupied residential uses; (3) implement feasible noise attenuation measures around stationary construction noise sources; and (4) use electric air compressors and similar power tools when feasible. These measures would be consistent with Policy NE-3.4 to further minimize exposure of construction noise to neighboring properties. Impacts related to on-site construction noise would be less than significant.

As discussed in **Section 3.0: Project Description**, a new off-site sewer main is being added at Jefferson Street (south of Sun City Boulevard) to Varner Road, and along Varner to an existing sewer pump station.

²¹ FHWA. *Special Report—Measurement, Prediction, and Mitigation*. Updated June 2017. https://www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm. Accessed November 2022.

The nearest sensitive uses for these off-site improvements includes the residential community across Avenue 40 to the south mentioned above and the Shadow Hills RV Resort located along Jefferson Street. As mentioned previously, the residential community includes large, landscaped setbacks with a masonry wall along the rear property lines of homes. Additionally, the Shadow Hills RV resort includes a masonry wall along Jefferson Street. Off-site construction noise levels at these sensitive uses would range from 63.4 dBA Leq-1hour at the Shadow Hills RV resort to 64.2 dBA Leq-1hour at the residential community along Jefferson Street south of Varner Road. Noise from off-site improvements would not exceed the significance criteria of 80 dBA Leq at any of the noise sensitive uses. As such, off-site improvement noise impacts would be less than significant.

Off-Site Construction Roadway Noise

Off-site construction noise, as detailed in the methodology section above, has been forecasted using the FHWA TNM and is based on forecasted haul truck activity as well as the delivery of building materials, including concrete. The FHWA TNM was used to calculate the hourly Leq noise levels generated by construction-related trucks. Noise impacts were determined by comparing the predicted noise level with that of the existing ambient noise levels along the anticipated truck travel routes. At the maximum, construction would include 300 haul truck roundtrips per day during importing activities for mass grading/off-street improvements. Additionally, this phase would include 30 worker trips per day and between 10 to 15 vendor trips per day.

Based on these trips, roadway noise levels would result in approximately between 58.7 to 62.9 dBA CNEL at 75 feet from the receptor depending on the use of medium or heavy-duty trucks. As shown in **Table 5.10-2**, the existing roadway noise levels along Jefferson Street between Avenue 38 and Avenue 40 was 65.2 dBA CNEL (Intersection 4) and along Avenue 40 between Madison Street and Jefferson Street ranged from 61.6 dBA CNEL to 62.9 dBA CNEL. The noise level increases from truck trips would be below the significance threshold of 5 dBA increase above ambient. Thus, Proposed Project noise impacts attributable to off-site construction truck travel would be less than significant.

Operation

Near-Term 2030

As mentioned previously, to estimate noise level increase and impacts due to the Project, noise level increases were calculated from the traffic volumes provided in the Transportation Study (refer to **Appendix K**). **Table 5.10-7: Near-Term (2030) With Project Roadway Noise Levels** illustrates the change in CNEL from Near-Term (Year 2030) traffic volumes and from traffic generated by the Project. The difference in traffic noise between existing conditions and existing plus Project conditions represents the increase in noise attributable to Project-related traffic. As shown in **Table 5.10-7**, Project-related traffic would not cause noise levels along the analyzed roadways to increase by more than 3.0 dBA. The maximum noise level increase along existing roadways would be 1.6 dBA along Madison Street south of Sun City Boulevard (Intersection 2). Consequently, traffic noise levels would not increase by 3 dBA or greater and noise impacts under the Near-Term (Year 2030) plus Project scenario would be less than significant.

**TABLE 5.10-7
NEAR-TERM (2030) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Near-Term (2030) without Project	Near-Term (2030) with Project	Difference
Avenue 38				
1	East of Talavera Boulevard	54.4	54.7	+0.3
1	West of Talavera Boulevard	54.2	54.8	+0.6
Sun City Boulevard				
2	East of Madison Street	48.9	48.9	0.0
2	West of Madison Street	N/A	52.2	N/A
Avenue 40				
3	East of Adams Street	58.4	59.1	+0.7
3	West of Adams Street	58.1	58.8	+0.7
4	East of Jefferson Street	62.7	63.3	+0.6
4	West of Jefferson Street	60.0	60.5	+0.5
5	East of Project Dwy/Camino San Gregorio	62.6	62.9	+0.3
5	West of Project Dwy/Camino San Gregorio	62.7	63.4	+0.7
6	East of Madison Street	63.6	64.0	+0.4
6	West of Madison Street	62.7	63.3	+0.6
Varner Road				
7	East of Jefferson Street	61.1	61.1	0.0
7	West of Jefferson Street	63.8	63.8	0.0
I-10 WB Ramps				
8	East of Jefferson Street	64.0	64.0	0.0
8	West of Jefferson Street	54.4	55.1	+0.7
I-10 EB Ramps				
9	East of Jefferson Street	69.5	69.6	+0.1
9	West of Jefferson Street	64.9	65.0	+0.1
Indio Boulevard				
10	East of Jefferson Street	N/A	N/A	N/A
10	West of Jefferson Street	69.2	69.3	+0.1

**TABLE 5.10-7
NEAR-TERM (2030) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Near-Term (2030) without Project	Near-Term (2030) with Project	Difference
<i>Country Club Drive</i>				
11	East of Jefferson Street	59.6	59.6	0.0
11	West of Jefferson Street	65.2	65.2	0.0
<i>Fred Waring Drive</i>				
12	East of Jefferson Street	67.8	67.8	0.0
12	West of Jefferson Street	68.5	68.5	0.0
<i>Avenue 41</i>				
13	East of Monroe Street	60.3	60.3	0.0
13	West of Monroe Street	N/A	N/A	N/A
<i>Avenue 42</i>				
14	East of Monroe Street	63.4	63.5	+0.1
14	West of Monroe Street	62.1	62.1	0.0
<i>Buena Vista Avenue</i>				
15	East of Monroe Street	60.8	60.8	0.0
15	West of Monroe Street	N/A	N/A	N/A
<i>I-10 WB Ramps</i>				
16	East of Monroe Street	58.3	58.4	+0.1
16	West of Monroe Street	58.3	58.3	0.0
<i>I-10 EB Ramps</i>				
17	East of Monroe Street	58.5	58.5	0.0
17	West of Monroe Street	60.3	60.3	0.0
<i>Talavera Blvd/Project Driveway</i>				
1	North of Avenue 38	45.2	45.2	0.0
1	South of Avenue 38	N/A	39.7	N/A
<i>Madison Street</i>				
2	North of Sun City Boulevard	54.7	54.9	+0.2
2	South of Sun City Boulevard	56.2	57.8	+1.6
6	North of Avenue 40	59.5	60.6	+1.1

**TABLE 5.10-7
NEAR-TERM (2030) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Near-Term (2030) without Project	Near-Term (2030) with Project	Difference
6	South of Avenue 40	46.0	46.0	0.0
Adams Street				
3	North of Avenue 40	59.8	59.8	0.0
3	South of Avenue 40	60.1	60.1	0.0
Jefferson Street				
4	North of Avenue 40	65.8	65.9	+0.1
4	South of Avenue 40	66.0	66.3	+0.3
7	North of Varner Road	66.0	66.5	+0.5
7	South of Varner Road	67.1	67.4	+0.3
8	North of I-10 WB Ramps	67.1	67.4	+0.3
8	South of I-10 WB Ramps	68.4	68.6	+0.2
9	North of I-10 EB Ramps	68.4	68.6	+0.2
9	South of I-10 EB Ramps	69.5	69.6	+0.1
10	North of Indio Boulevard	69.4	69.5	+0.1
10	South of Indio Boulevard	66.9	66.9	0.0
11	North of Ave 42/Country Club Dr	68.3	68.4	+0.1
11	South of Ave 42/Country Club Dr	68.5	68.6	+0.1
12	North of Fred Waring Dr	69.4	69.5	+0.1
12	South of Fred Waring Dr	69.9	69.9	0.0
Project Dwy/Camino San Gregorio				
5	North of Avenue 40	62.6	62.9	+0.3
5	South of Avenue 40	62.7	63.4	+0.7
Monroe Street				
13	North of Avenue 41	62.1	62.8	+0.7
13	South of Avenue 41	61.5	62.2	+0.1
14	North of Avenue 42	63.0	63.4	+0.4
14	South of Avenue 42	64.1	64.3	+0.2
15	North of Buena Vista Avenue	64.1	64.3	+0.2

**TABLE 5.10-7
NEAR-TERM (2030) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Near-Term (2030) without Project	Near-Term (2030) with Project	Difference
15	South of Buena Vista Avenue	65.9	66.1	+0.2
16	North of I-10 WB Ramps	64.6	64.9	+0.3
16	South of I-10 WB Ramps	65.1	65.2	+0.1
17	North of I-10 EB Ramps	65.2	65.3	+0.1
17	South of I-10 EB Ramps	65.6	65.7	+0.1

Source: Refer to **Appendix J** for roadway noise worksheets.
N/A = No Data.

Stationary Noise

HVAC Systems

The Project would introduce various stationary noise sources, including HVAC systems, which would be located either on the roof, the side of a structure, or on the ground. Off-site and on-site sensitive receptors could be potentially affected by the introduction of such equipment. Typically, this type of equipment produces noise levels of approximately 56.0 dB(A) at 50 feet from the source. This equipment would be screened and integrated in architectural design of the building, and would further attenuate sound emanating from the HVAC systems. As the sound distance doubles from 50 to 100 feet from the equipment, sound levels would be reduced to 50 dB(A). The use of such equipment would not generate noise levels that would substantially elevate the ambient noise environment and would not generate substantial noise at nearby noise-sensitive receptors. Impacts would be less than significant.

Human Activity Related Noise

Future residents located on the Project site, as well as nearby sensitive receptors, may experience increases in noise due to an increase in human activity within the area either from people living on the premises, utilizing the on-site amenities including common areas, and the outdoor recreational and open space areas. Potential sources of noise include people talking, doors slamming, stereos, and other noise associated with human activity. These noise sources are not unique and generally contribute to ambient noise levels experienced in all land use areas. Overall, the noise generated by the Project's land uses would be consistent with the noise levels in the Project Site and impacts would be less than significant.

Threshold 5.10-2: Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?

Construction

On-Site Construction Vibration

Table 5.10-8: On-Site Construction Vibration Impacts-Building Damage and **Table 5.10-9: On-Site Construction Vibration-Human Annoyance** presents the construction vibration impacts associated with on-site construction in terms of building damage and human annoyance, respectively. As shown in **Table 5.10-8**, the forecasted vibration levels due to on-site construction activities would not exceed the building damage significance threshold for all sites surrounding the Project area during construction. Therefore, on-site construction vibration with regard to building damage would be less than significant.

As shown in **Table 5.10-9**, the forecasted vibration levels due to on-site construction activities would not exceed the human annoyance significance thresholds for all sites surrounding the Project. Therefore, on-site construction vibration with regard to human annoyance would be less than significant.

**TABLE 5.10-8
ON-SITE CONSTRUCTION VIBRATION IMPACTS - BUILDING DAMAGE**

ID	Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment			Significance Threshold (PPV ips)	
		Vibratory Roller	Loaded Trucks	Jackhammer		Small bulldozer
1	Residential community across Avenue 38 to the north	0.023	0.008	0.004	0.000	0.5
2	80640 40th Avenue	0.003	0.001	0.000	0.000	0.5
3	Residential community across Avenue 40 to the south	0.021	0.008	0.004	0.000	0.5
4	Residential Community across Madison Street to the east	0.016	0.006	0.003	0.000	0.5
5	Residential community along Jefferson Street to the west	0.001	0.000	0.000	0.000	0.5
6	Shadow Hills High School along Jefferson Street to the west	0.008	0.003	0.001	0.000	0.5

Source: US Department of Transportation, Federal Transportation Authority, Transit Noise and Vibration Impact Assessment. Refer to Appendix J for construction vibration worksheets.

**TABLE 5.10-9
ON-SITE CONSTRUCTION VIBRATION IMPACTS - HUMAN ANNOYANCE**

ID	Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment			Significance Threshold (VdB)	
		Vibratory Roller	Loaded Trucks	Jackhammer		Small bulldozer
1	Residential community across Avenue 38 to the north	75	66	60	38	78
2	80640 40 th Avenue	57	49	42	21	78
3	Residential community across Avenue 40 to the south	75	66	59	38	78
4	Residential Community across Madison Street to the east	72	63	56	35	78

**TABLE 5.10-9
ON-SITE CONSTRUCTION VIBRATION IMPACTS - HUMAN ANNOYANCE**

ID	Nearest Off-Site Building Structures	Estimated Vibration Velocity Levels at the Nearest Off-Site Structures from the Project Construction Equipment				Significance Threshold (VdB)
		Vibratory Roller	Loaded Trucks	Jackhammer	Small bulldozer	
5	Residential community along Jefferson Street to the west	45	36	29	8	78
6	Shadow Hills High School along Jefferson Street to the west	66	57	50	29	78

Source: US Department of Transportation, Federal Transportation Authority, Transit Noise and Vibration Impact Assessment. Refer to Appendix J for construction vibration worksheets.

Off-Site Construction Vibration

In addition to on-site construction activities, construction delivery/haul trucks would generate ground-borne vibration as they travel along the Projects anticipated off-site truck travel routes. Based on the FTA data, the vibration generated by a typical heavy-duty truck would be approximately 71 VdB (0.015 PPV) at a distance of 75 feet from the truck.²² This forecasted vibration level would be well below the most stringent building damage criteria of 0.12 PPV. Therefore, vibration impacts with respect to building damage from off-site construction truck travel on public roadways would be less than significant.

In addition, vibration sensitive uses (e.g., residential, hotel) are located along Avenue 38 to the north, Madison Street to the east, Avenue 40 to the south, and Jefferson Street to the west. Ground-borne vibration levels generated by off-site construction truck travel would be below the 78 VdB significance threshold, as these uses are located more than 75 feet from the truck travel pathway. Thus, vibration impacts with respect to human annoyance from off-site construction truck travel would be less than significant for the vibration sensitive land uses located along these roadways.

Operation

Similar to existing conditions, the primary sources of vibration associated with operation would include passenger-vehicle circulation within the Project area and on-site truck activity. Ground-borne vibration typically attenuates rapidly as a function of distance from the vibration source. Furthermore, the majority of the Project's operation-related vibration sources, such as mechanical equipment, would incorporate vibration attenuation mounts as required by the particular equipment specifications. Therefore, operation would not substantially increase existing vibration levels in the immediate vicinity of the Project site. Therefore, vibration impacts associated with operation would be less than significant.

²² FTA. "Transit Noise and Vibration Impact Assessment." May 2006. Figure 7-3.

CUMULATIVE IMPACTS

Construction

Noise

Noise impacts are localized in nature and decrease with distance. Cumulative construction noise impacts have the potential to occur when multiple construction projects in the local area generate noise within the same time frame and contribute to the local ambient noise environment. Based on noise levels generated by construction activities associated with the Project and the proximity of both on- and off-site receptors, construction noise from the Project would contribute to the cumulative noise environment. It is expected that, as with the Project, the related projects would implement Best Management Practices (BMPs), which would minimize any noise-related nuisances during construction. Therefore, combined construction noise impact of the related projects and the Project's contribution would not cause a significant cumulative impact. Consequently, impacts would be less than significant with mitigation incorporated.

Vibration

As discussed above, vibration impacts are generally less than significant when the receptor is more than 25 feet from the vibration source. There are no identified project anticipating construction concurrently with the Project and within 25 feet of the sensitive receptors that could be affected by construction. As such, there would be no cumulative sources of construction vibration and no cumulative impact. Impacts would be less than significant.

Operational

Table 5.10-10: Cumulative (2045) With Project Roadway Traffic Noise Levels illustrates the change in CNEL from Cumulative (Year 2045) ambient conditions and from buildout. The Cumulative (Year 2045) ambient conditions represent traffic growth or cumulative development within the Project Site. As shown in **Table 5.10-10**, Project-related traffic would not cause noise levels along the analyzed roadways to increase by more than 3.0 dBA. The maximum noise level increase along future roadways would be 1.4 dBA along Madison Street south of Sun City Boulevard (Intersection 2). As such, impacts related to cumulative roadway noise levels would be less than significant.

**TABLE 5.10-10
CUMULATIVE (2045) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Cumulative (2045) without Project	Cumulative (2045) with Project	Difference
Avenue 38				
1	East of Talavera Boulevard	55.5	55.7	+0.2
1	West of Talavera Boulevard	58.1	58.3	+0.2
Sun City Boulevard				
2	East of Madison Street	49.6	49.6	0.0
2	West of Madison Street	N/A	52.2	N/A
Avenue 40				
3	East of Adams Street	59.6	60.1	+0.5
3	West of Adams Street	59.1	59.6	+0.5
4	East of Jefferson Street	63.0	63.9	+0.9
4	West of Jefferson Street	61.2	61.5	+0.3
5	East of Project Dwy/Camino San Gregorio	63.2	63.7	+0.5
5	West of Project Dwy/Camino San Gregorio	63.1	64.0	+0.9
6	East of Madison Street	64.2	64.7	+0.5
6	West of Madison Street	63.3	63.9	+0.6
Varner Road				
7	East of Jefferson Street	61.9	61.9	0.0
7	West of Jefferson Street	64.2	64.2	0.0
I-10 WB Ramps				
8	East of Jefferson Street	64.7	64.8	+0.1
8	West of Jefferson Street	55.8	56.3	+0.5
I-10 EB Ramps				
9	East of Jefferson Street	N/A	N/A	N/A
9	West of Jefferson Street	65.7	65.8	+0.1
Indio Boulevard				
10	East of Jefferson Street	N/A	N/A	N/A
10	West of Jefferson Street	69.7	69.8	+0.1

**TABLE 5.10-10
CUMULATIVE (2045) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Cumulative (2045) without Project	Cumulative (2045) with Project	Difference
<i>Country Club Drive</i>				
11	East of Jefferson Street	60.1	60.1	0.0
11	West of Jefferson Street	65.8	65.8	0.0
<i>Fred Waring Drive</i>				
12	East of Jefferson Street	69.0	68.6	-0.4
12	West of Jefferson Street	69.1	69.1	0.0
<i>Avenue 41</i>				
13	East of Monroe Street	61.9	61.9	0.0
13	West of Monroe Street	N/A	N/A	
<i>Avenue 42</i>				
14	East of Monroe Street	64.4	64.6	+0.2
14	West of Monroe Street	63.9	63.9	0.0
<i>Buena Vista Avenue</i>				
15	East of Monroe Street	61.4	61.4	0.0
15	West of Monroe Street	54.1	54.1	0.0
<i>I-10 WB Ramps</i>				
16	East of Monroe Street	59.8	59.9	+0.1
16	West of Monroe Street	58.8	58.8	0.0
<i>I-10 EB Ramps</i>				
17	East of Monroe Street	61.3	61.4	+0.1
17	West of Monroe Street	60.7	60.7	0.0
<i>Talavera Blvd/Project Driveway</i>				
1	North of Avenue 38	45.2	45.2	0.0
1	South of Avenue 38	N/A	39.7	0.0
<i>Madison Street</i>				
2	North of Sun City Boulevard	55.3	55.5	+0.2
2	South of Sun City Boulevard	56.9	58.3	+1.4

**TABLE 5.10-10
CUMULATIVE (2045) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Cumulative (2045) without Project	Cumulative (2045) with Project	Difference
6	North of Avenue 40	64.2	64.7	+0.5
6	South of Avenue 40	63.3	63.9	+0.6
Adams Street				
3	North of Avenue 40	60.0	60.0	0.0
3	South of Avenue 40	60.0	60.0	0.0
Jefferson Street				
4	North of Avenue 40	66.7	66.7	0.0
4	South of Avenue 40	66.8	67.2	+0.4
7	North of Varner Road	66.5	66.9	+0.4
7	South of Varner Road	67.7	68.0	+1.3
8	North of I-10 WB Ramps	67.7	68.0	+1.3
8	South of I-10 WB Ramps	69.0	69.2	+0.2
9	North of I-10 EB Ramps	69.0	69.2	+0.2
9	South of I-10 EB Ramps	70.0	70.1	+0.1
10	North of Indio Boulevard	70.3	70.4	+0.1
10	South of Indio Boulevard	68.0	68.1	+0.1
11	North of Ave 42/Country Club Dr	69.2	69.3	+0.1
11	South of Ave 42/Country Club Dr	69.4	69.5	+0.1
12	North of Fred Waring Dr	69.9	70.0	+0.1
12	South of Fred Waring Dr	70.7	70.6	-0.1
Project Dwy/Camino San Gregorio				
5	North of Avenue 40	N/A	47.5	N/A
5	South of Avenue 40	43.6	43.6	0.0
Monroe Street				
13	North of Avenue 41	63.5	64.0	+0.5
13	South of Avenue 41	62.2	62.8	+0.6
14	North of Avenue 42	64.8	65.2	+0.4

**TABLE 5.10-10
CUMULATIVE (2045) WITH PROJECT ROADWAY TRAFFIC NOISE LEVELS**

Intersection No.	Roadway Segment	Cumulative (2045) without Project	Cumulative (2045) with Project	Difference
14	South of Avenue 42	65.6	65.8	+0.2
15	North of Buena Vista Avenue	65.6	65.8	+0.2
15	South of Buena Vista Avenue	67.0	67.2	+0.2
16	North of I-10 WB Ramps	65.8	65.9	+0.1
16	South of I-10 WB Ramps	66.3	66.3	0.0
17	North of I-10 EB Ramps	66.3	66.4	+0.1
17	South of I-10 EB Ramps	67.0	67.1	+0.1

Source: Refer to Appendix J for roadway noise worksheets.
N/A = No Data.

MITIGATION MEASURES

The following mitigation measures have been identified to mitigate noise impacts:

- MM NOI-1:** The project applicant shall require that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels below the City's established thresholds:
- Construction equipment shall be equipped with exhaust muffler systems consistent with FHWA guidance.
 - All equipment shall be properly maintained in accordance with manufacturers' specifications to assure that no additional noise due to worn or improperly maintained parts is generated consistent with FHWA guidance.
 - Construction equipment shall have features that dampen metal surfaces and minimize metal-to-metal contact consistent with FHWA guidance.
 - When construction operations occur adjacent to off-site occupied residential areas, construction equipment staging areas and stationary noise sources shall be located as far from those nearby receptors as possible, prohibit idling equipment, notify adjacent residences in advance of construction work, and install temporary acoustic barriers or noise blankets around stationary construction noise sources. These barriers shall be made featuring weather-protected, sound-absorptive material on the construction-activity side of the noise barrier and must be installed in a location that completely blocks line-of-sight between the construction noise source and adjacent sensitive receptors.
 - Stationary construction equipment, such as pumps, generators, or compressors, must be placed as far from noise sensitive uses as feasible during all phases of project construction.
 - Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
 - Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, must be turned off when not in use for more than 30 minutes.
 - Construction hours, allowable workdays, and the phone number of the job superintendent must be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent must investigate, take appropriate corrective action, and report the action taken to the reporting party. Contract specifications must be included in the proposed Project construction documents, which must be reviewed by the City prior to issuance of grading permits.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure **MM NOI-1** would provide noise abatement during construction near adjacent receptors. Mitigation Measure **MM NOI-1** requires the use of optimal muffler systems on all equipment which would achieve a reduction of 10 dBA or more. Additionally, **Mitigation Measure MM NOI-1** would also require the following: (1) ensure all construction equipment is properly maintained such that no additional noise due to worn or improperly maintained parts is generated; and (2) ensure all construction equipment incorporates features that dampen metal surfaces and minimize metal-to-

metal contact such that a noise reduction of up to 5 dBA is achieved. This mitigation would be consistent with the City of Indio's General Plan Policy NE-3.4, which requires development to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity during all phases of construction. These combined measures would reduce construction noise levels by a minimum of 15 dBA. In addition, **Mitigation Measure MM NOI-1** would also result in additional reductions that have conservatively not been quantified for the purposes of this analysis. Specifically, **MM NOI-1** would require the following: (1) implement appropriate noise reduction measures when construction operations occur adjacent to off-site occupied residential areas; (2) locate staging areas on-site to maximize the distance between staging areas and off-site occupied residential uses; (3) implement feasible noise attenuation measures around stationary construction noise sources; and (4) use electric air compressors and similar power tools when feasible. These measures would be consistent with Policy NE-3.4 to further minimize exposure of construction noise to neighboring properties. As such, impacts related to construction noise would be less than significant.

5.11 POPULATION AND HOUSING

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to induce substantial population or housing growth that would result in impacts to the environment or directly impact existing housing. To determine if the Project would result in substantial population or housing growth, the consistency of the Project with current growth projections is assessed. The relationship of the Project to the regional planning policies of the Southern California Association of Governments (SCAG), the Coachella Valley Association of Governments (CVAG), and the current City of Indio General Plan Housing Element are also discussed.

Prior to the preparation of this Draft EIR, an Initial Study (included in **Appendix A** of this Draft EIR) was prepared using the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with population and housing. The Initial Study determined that the proposed Project would not have a significant impact on population and housing within the scope of the City. However, additional analysis is provided in this section of the Draft EIR in order to comprehensively assess the impact of the proposed Project on population and housing within the City.

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

REGULATORY SETTING

State

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth including a housing element that identifies the housing need for all economic segments and provides opportunities for housing development to meet that need.¹ At the state level, the Housing and Community Development Department estimates the relative share of California’s projection population growth that would occur in each county within the state, based on California Department of Finance (DOF) population projections and historical growth trends. Where there is a regional council of governments, the California Housing and Community Development Department provides the regional housing need to the council. The regional council then allocates a share of the regional housing need to each of its cities and counties through the Regional Housing Needs Assessment (RHNA) process discussed previously. The process of assigning shares provides cities and counties the opportunity to comment on

¹ California Government Code, sec. 65300.

the proposed allocations. The Housing and Community Development Department oversees the process to ensure that the council of governments distributes its share of the state's projected housing need.

Each city and county is required to update its general plan housing element on a regular basis (generally, every eight years). Among other things, the housing element must incorporate policies and identify potential sites that would accommodate its share of the regional housing need. Before adopting an update to its housing element, the city or county must submit the draft to the state Housing and Community Development Department for review. The department will advise the local jurisdiction whether its housing element complies with the provisions of California Housing Element Law.

At the beginning of each cycle, the Housing and Community Development Department provides population projections to the councils of governments, who then allocate shares to their cities and counties as discussed previously. The shares of regional need are allocated before the end of the cycle so that the cities and counties can amend their housing elements by the deadline.

Regional and Local

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses more than 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives.

SCAG is also responsible for the designated Regional Transportation Plan (RTP), including its Sustainable Communities Strategy (SCS; together, RTP/SCS) component pursuant to Senate Bill 375. The primary goal of the RTP is to increase mobility for the region's residents and visitors, as well as for commerce and goods movement. The Sustainable Communities Strategy has been formulated to reduce GHG emissions from passenger vehicles by 8 percent per capita by 2020 and by 19 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board.²

2 Southern California Association of Governments (SCAG). *Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*. Adopted September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176. Accessed November 2022.

As part of the 2020-2045 RTP/SCS, SCAG prepared the Demographics and Growth Forecast, which projects growth in employment, population, and households at the regional, county, jurisdictional, and sub jurisdictional-levels. The regional and county growth forecasts reflect recent and past trends and expert-derived demographic and economic assumptions. The Regional Growth Forecast is used as a key guide for developing regional plans and strategies mandated by federal and State governments such as the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the Air Quality Management Plan (AQMP), the Federal Transportation Improvement Program (FTIP), and the Regional Housing Needs Assessment (RHNA). The SCAG population, households, and employment projects for Riverside County are shown in **Table 5.11-1: SCAG Projections for Riverside County**.

TABLE 5.11-1 SCAG PROJECTIONS FOR RIVERSIDE COUNTY			
	2020	2035	2045
Population	2,493,000	2,996,000	3,252,000
Households	785,000	988,000	1,086,000
Employment	823,000	1,009,000	1,103,000

Source: SCAG. 2020-2045 RTP/SCS.

The SCAG population, households, and employment projections for the City are shown in **Table 5.11-2: SCAG Projections for City of Indio**.

TABLE 5.11-2 SCAG PROJECTIONS FOR CITY OF INDIO		
	2016	2045
Population	88,100	129,300
Households	26,000	44,000
Employment	26,600	38,300

Source: SCAG. 2020-2045 RTP/SCS.

The 2020-2045 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations. The Project’s consistency with the applicable policies of the 2020-2045 RTP/SCS is provided in **Section 5.9: Land Use and Planning** of this Draft EIR.

Coachella Valley Association of Governments

The Coachella Valley Association of Governments (CVAG) is a subregional organization within SCAG. CVAG operates as the lead agency and as part of larger jurisdictional or regional teams within the Coachella Valley, made up of ten cities, Riverside County and two Native American Indian tribes. CVAG represents member local governments and agencies throughout the Coachella Valley.

City of Indio General Plan

Government Code Section 65300 et seq. requires that each county and city prepare and adopt a comprehensive, long-term plan for its future development, often called the General Plan. The General Plan, which serves as the blueprint for planning and development in the City and indicates the community's visions for the future, must contain the following seven elements at minimum: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. The City's most recent General Plan was adopted in 2019.³

Housing Element

The City's Housing Element is a strategic vision and policy guide designed to help address the comprehensive housing needs of the City over an 8-year period (2021-2029 planning period). It defines the City's housing needs, identifies the barriers or constraints to providing needed housing, and provides policies and programs to address these housing needs and constraints. The 2021-2029 Housing Element addresses the housing needs of the City for the planning period through 2029. The following goals and policies from the Housing Element are relevant to the Project:

- | | |
|-------------------|---|
| Goal 1 | An adequate supply and diverse range of housing types that align with the needs of all households. |
| Policy 1.5 | Facilitate the planning, approval, and construction of housing that meets a wide range of needs for a variety household types, creating balanced communities. |
| Policy 1.6 | Identify and evaluate options to increase housing opportunities in areas planned and zoned for single-family residential densities. |
| Policy 1.7 | Identify areas appropriate for increased residential densities and pair City-led rezoning efforts with environmental streamlining opportunities, such as program Environmental Impact Reports to allow for individual projects consistent with the zone by-right. |
| Goal 3 | A well-maintained and preserved housing stock. |
| Policy 3.3 | Assist older adults and those with special needs with home retrofits to increase accessibility. |
| Goal 5 | Enhanced quality of life, free from displacement. |
| Policy 5.2 | Reduce energy use and the cost of utilities through energy-efficient development and retrofits. |
| Policy 5.3 | Support and encourage development that incorporates passive or active green space, such as green roofs, walls, and courtyards that can provide carbon capture and cooling in urban environments. |
| Goal 6 | A City that promotes equality and inclusivity. |

³ City of Indio. *General Plan 2040 (2019)*. <https://www.indio.org/departments/community-development-department/general-plan-2040/general-plan-2040-documents>. Accessed November 2022.

- Policy 6.1** Promote equitable and fair housing opportunities for all persons regardless of race, color, religion, sex or gender identity, national origin or ancestry, marital status, age, ability or disability, household composition or size, or any other protected characteristics.
- Policy 6.5** Foster neighborhoods that include affordable, senior, and accessible housing options, and analyze equity and inclusion through all planning efforts.

ENVIRONMENTAL SETTING

Existing Conditions

Riverside County

Riverside County (County) has experienced substantial growth in population over the past few decades. According to the California Department of Finance (DOF), the County population grew from an estimated 2,189,641 in 2010 to 2,440,719 in 2020,⁴ an increase of approximately 12 percent. As of January 2022, the County's population decreased to 2,435,525,⁵ a decrease of approximately 0.2 percent from the 2020 population. According to the United State Census Bureau, the County had a median age of 33.7 in 2010, which increased to 36.6 in 2021.⁶

The County had 800,707 housing units in 2010, of which approximately 86 percent, or 686,260 units, were occupied. The number of housing units increased to approximately 856,124 in 2020, an increase of approximately 6.5 percent, with an occupancy rate of approximately 87 percent, or approximately 744,644 units.⁷

Additionally, the County contained a total estimated employed population of 854,828 in 2010, increasing to 1,060,204 in 2021.⁸

4 California Department of Finance (DOF). "E-4 Population Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark (May 2021)." <https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2011-2020-with-2010-census-benchmark-new/>. Accessed October 2022.

5 DOF. "E-4 Population Estimates for Cities, Counties, and the State, 2021-2022 with 2020 Census Benchmark (May 2022)." <https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2022-with-2020-census-benchmark/>. Accessed October 2022.

6 United States (US) Census Bureau. "Data - Tables. American Community Survey (ACS) (S0101)." https://data.census.gov/cedsci/table?q=median%20age&g=0100000US_0500000US06065_1600000US0636448&tid=ACST1Y2010.S0101. Accessed November 2022.

7 DOF. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2020 with 2010 Census Benchmark (May 2021)." <https://dof.ca.gov/forecasting/Demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2011-2020-with-2010-census-benchmark-new/>. Accessed November 2022.

8 US Census Bureau. "Data - Tables. American Community Survey (ACS) (S2403)." https://data.census.gov/cedsci/table?q=S2403&g=0400000US06_0500000US06065_1600000US0636448&tid=ACST1Y2010.S2403. Accessed November 2022.

City of Indio

According to the DOF, the City of Indio (City) grew from a population of 76,036 in 2010⁹ to 89,137 in 2022,¹⁰ an increase of approximately 15 percent. The City’s population accounted for approximately 4 percent of the County of Riverside’s total population in 2022. As of 2022, the City had a total of 35,276 housing units, approximately 82 percent of which, or 28,983 units, were occupied.¹¹ The vacancy rate within the City was approximately 18 percent, or 6,293 units, which is a result of many of these units serving as second or vacation homes for part-time residents. In 2021, the City had a median age of 42.9 years compared with those of Riverside County (36.6), the State (37.6), and the Nation (38.8).¹² In addition, the proportion of seniors aged 65 and older was higher in 2021 (23.5 percent) than in 2010 (14.4 percent).

The City’s Housing Element for the 2021-2029 planning period, provides analysis of the local housing needs for all income levels, identifies barriers to providing housing and identifies actions to allow for the addition of needed housing by 2029. Local housing needs are identified through the Regional Housing Needs Assessment (RHNA). The RHNA is the California State-required process that seeks to ensure that cities and counties are planning for enough housing to accommodate all economic segments of the community. The City is required to plan for existing and projected housing needs, including its share of the RHNA, as identified by the State with input from the Southern California Association of Governments (SCAG) and local cities and counties. **Table 5.11-3: City of Indio RHNA Allocations** identifies the City’s 6th Cycle RHNA targets by income level:

Income Level	Housing Target
Extremely Low-Income	896
Very Low-Income	897
Low-Income	1,170
Moderate Income	1,315
Above Moderate Income	3,534
Total	7,812

Source: *City of Indio General Plan Update 2040 (2019). “Housing Element.” Page 3. Available at: <https://www.indio.org/home/showpublisheddocument/282/637873506107330000>. Accessed November 2022.*

- 9 DOF. “E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2020.” <https://dof.ca.gov/forecasting/Demographics/estimates/estimates-e5-2010-2020/>. Accessed November 2022.
- 10 DOF. “E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022.” <https://dof.ca.gov/forecasting/Demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed November 2022.
- 11 DOF. “E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2020 with 2010 Census Benchmark (May 2021).” <https://dof.ca.gov/forecasting/Demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2011-2020-with-2010-census-benchmark-new/>. Accessed November 2022.
- 12 US Census Bureau. “Data - Tables. American Community Survey (ACS) (S0101).” https://data.census.gov/cedsci/table?q=median%20age&g=0100000US_0500000US06065_1600000US0636448&tid=ACSS1Y2010.S0101. Accessed November 2022.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of impacts to population and housing (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact if it would:

Threshold 5.11-1: Induce substantial 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).

Methodology

This analysis considers population, housing, and employment growth that would occur with implementation of the Project and whether this growth is consistent with applicable regional growth forecasts. This analysis also considers whether this population, housing, and employment growth is considered substantial with respect to remaining growth potential in the City, as defined in the City's General Plan. The most recent DOF and U.S. Census population and housing estimates for the City were used in conjunction with the SCAG population projections to determine potential population and housing impacts.

Project Impacts

Threshold 5.11-1: 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)?

Population Growth

The Project proposes development of up to 1,500 homes on a site designated for development of residential uses by the Indio General Plan. The surrounding area is generally developed on the south, north, and east sides of the Project Site. With urban infrastructure available in the streets bordering the Specific Plan Area, the proposed project would not extend roads or other infrastructure, such as water or sewer lines, to any currently unserved areas. While a new IID substation or comparable infrastructure is required to adequately serve the project, and this infrastructure is expected to have excess capacity to improve system reliability and/or serve additional planned new development, such development would be consistent with the Indio General Plan and would not induce substantial population growth beyond what is already planned under the existing General Plan and analyzed in the General Plan Update EIR.

The proposed Project would be an age restricted community, with all residents aged 55 and above. These age restricted households would have a smaller average household size than the rest of the City. To develop the household size estimate for the proposed Project, U.S. Census Tract Map data was accessed to determine the average household size of the existing active adult community located immediately

east and south of the proposed Project Site. This data showed an average of 1.74 persons per household, which was rounded up to 1.8 for purposes of estimating the increase in populations that would result from implementation of the proposed Project.¹³

As identified previously, the City's estimated 2022 population was 89,137 residents and SCAG projects the population of the City will increase to approximately 129,300 in 2045. Using an average household size of 1.8 persons, total population projected from buildout of the Project Site would add up to 1,500 additional residential units and 2,700 new residents to the City. The City's current General Plan designates the Project Site as Suburban Neighborhood High.¹⁴ Based on the permitted residential density of 4 - 8 dwelling units/acre in the Suburban Neighborhood High designation,¹⁵ the existing zoning/land use designation for the Project Site could accommodate up to approximately 2,816 dwelling units¹⁶ and up to approximately 5,069 potential residents.¹⁷ As explained further below, the population growth that would be associated with the Project is consistent with City's General Plan land use designation allowing 4-8 du/acre and SCAG projections, and can be accommodated by existing and planned future infrastructure.

The population increase associated with the Project would account for approximately 2.1 percent of the population growth anticipated in the City's SCAG projections by 2045 and approximately 0.08 percent of the anticipated population across the SCAG region by 2045.

Public service and utility providers have indicated that they can accommodate the projected growth from the Project, as discussed in **Section 5.12: Public Services** and **Section 5.16: Utilities and Service Systems**, respectively, of this Draft EIR. Accordingly, the Project would not directly or indirectly induce substantial unplanned population growth in the area. Impacts would be less than significant.

Housing

The number of housing units in the City in 2022 is estimated at 35,276 units.¹⁸ The Project would add up to 1,500 residential dwelling units within the Project Site. The City's RHNA identified the need for 7,812 additional housing units within the City by 2029 but did not identify the project site in its inventory of affordable housing sites. The housing increase associated with the Project would account for

13 US Census Bureau. "Data - Tables. American Community Survey (ACA) 5 Year Estimates (2020)." <https://data.census.gov/cedsci/table?g=1400000US06065051401,06065051402&tid=ACSST5Y2020.S1101>. Accessed November 2022.

14 City of Indio. *General Plan Update 2040 (2019)*. "Indio Land Use Map." <https://www.indio.org/home/showpublisheddocument/904/637874287851600000>. Accessed November 2022.

15 City of Indio Municipal Code. Title XV. Chapter 159. Section 159.119.

16 8 du/acre * 352 acres (proposed Project land use dedicated to residential use) = 2,816 du.

17 Based on 1.8 persons per household estimate * 2,816 du = 5,068.8 residents.

18 DOF. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2020 with 2010 Census Benchmark (May 2021)." <https://dof.ca.gov/forecasting/Demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2011-2020-with-2010-census-benchmark-new/>. Accessed November 2022.

approximately 19 percent of the RHNA planned housing units in the City¹⁹ and approximately 3.4 percent of the anticipated increase in number of households projected by SCAG for the City by 2045.²⁰

The Project Site represents a substantial portion of the remaining vacant land in the northern portion of the City and, as discussed previously, it has been demonstrated that public service and utility providers have adequate capacity to accommodate the population increase associated with the Project. Therefore, while implementation of the Project would result in a direct increase in population and housing, this increase is consistent with projected residential growth for the City.

CUMULATIVE IMPACTS

Implementation of the Project, in combination with other development projects in the unincorporated County areas, adjacent jurisdictions, and the City in accordance with the adopted General Plan, would contribute to future population, housing, and employment growth within the area. While the Project would contribute to the growth of the County and the City, any population, housing, and employment growth as a result of the Project is consistent with increases anticipated by the City's General Plan and regional growth forecasts. For this reason, the Project would not contribute to any cumulative population and housing growth impacts.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE OF MITIGATION

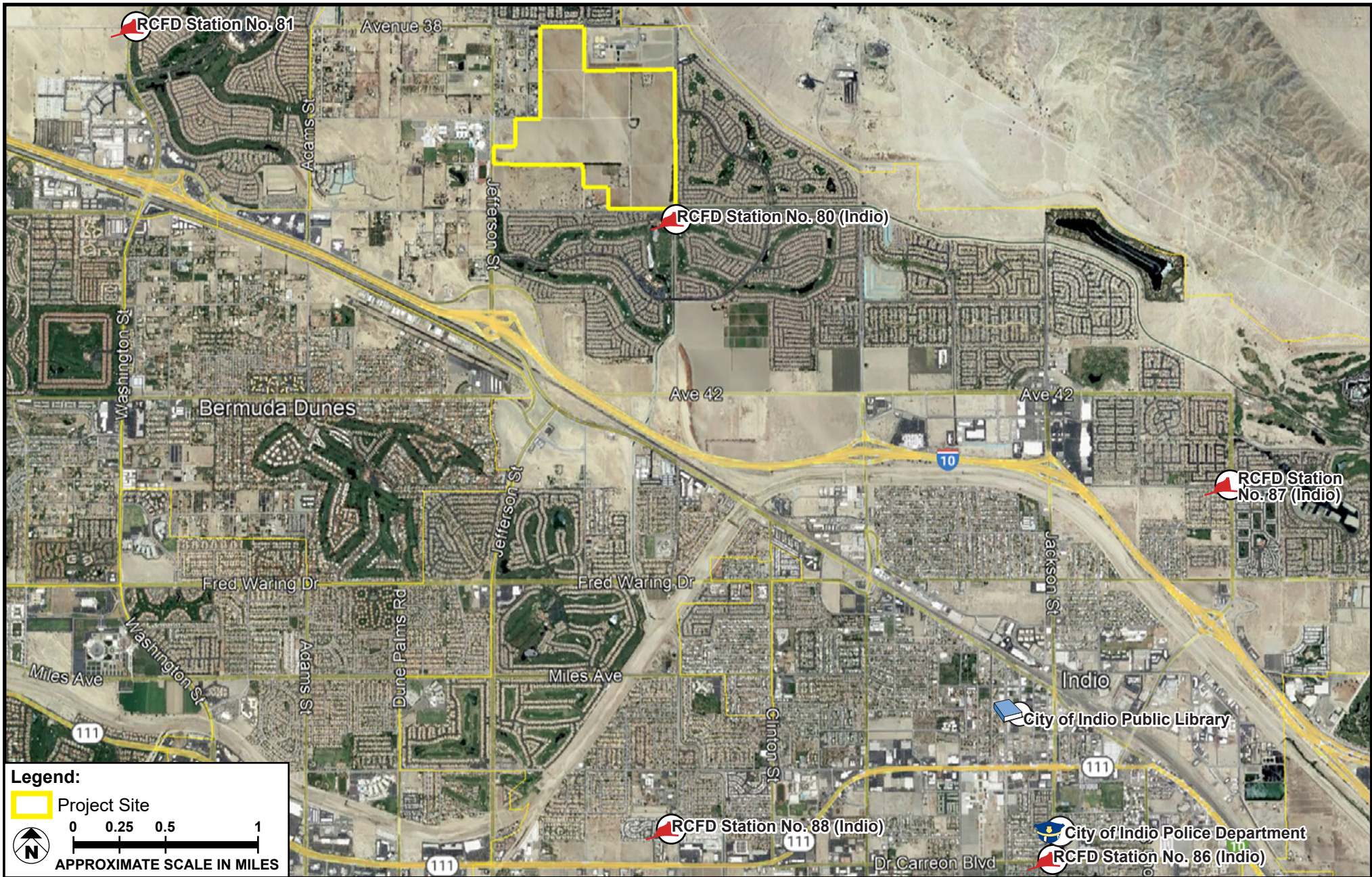
No significant impacts have been identified and no mitigation measures are necessary.

¹⁹ 1,500 housing units (Project Site) / 7,812 housing units (RHNA) = 19%.

²⁰ 1,500 housing units (Project Site) / 44,000 housing units (SCAG City of Indio) = 3.4%.

5.12 PUBLIC SERVICES

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential impacts of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) on fire protection, police protection, and libraries. The potential impacts of the Project on park facilities are discussed in **Section 5.13: Recreation**. The information provided in this section is based on the City’s General Plan and General Plan EIR. **Figure 5.12-1: Public Services within Proximity to Project Site**, shows the location of public service facilities in relation to the Project Site.



SOURCE: Google Earth - 2022

FIGURE 5.12-1

5.12.1 FIRE PROTECTION AND EMERGENCY SERVICES

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact fire protection and emergency medical services provided to the City of Indio by the California Department of Forestry and Fire Protection (Cal Fire) and Riverside County Fire Department (RCFD).

REGULATORY SETTING

State

California Building Code

The California Building Code (CBC) includes relevant fire safety standards and the California Fire Code, which is from Title 24, Part 9 of the California Code of Regulations. In compliance with the California Building Standards Commission based on the 2021 International Fire Code, the CBC sets building requirements that will ensure all structures are designed to ensure proper emergency access. Additionally, it indicates other design features, such as fire sprinklers, fire flow standards, emergency access roads standards, and storage of flammable materials, which comply with fire department minimum requirements.

California Fire Code

The 2022 California Fire Code (CFC) applies to all occupancies throughout the State of California as annotated. The CFC is the minimum State standard for fire code implementation in California and is based on the content of the Uniform Fire Code.¹ The CFC contains regulations consistent with nationally recognized standards and practices for safeguarding property from hazards including:

- Fire and explosion
- Dangerous conditions arising from the storage, handling, and use of hazardous materials and devices
- Hazardous conditions in the use or occupancy of buildings or premises

The CFC also contains provisions to assist emergency response personnel. These fire-safety-related building standards are referenced in other parts of Title 24.

¹ California Code of Regulations (CCR). Title 24. Part 9. 2022.

Regional and Local Indio General Plan

The Safety Element of the City’s General Plan includes policies related to the fire protection and emergency services that are needed to support the City.² It identifies the source of funding, the formulation of the City’s fire protection services, stations that currently service the City, and the plans to expand existing fire services based on the City’s continued growth and development. Further, the Safety Element outlines the following relevant goals and policies related to fire protection:

- Goal SE-3: Fire Safety.** A community safe from the risk of fire and with appropriate fire response standards.
- Policy SE-3.1 Compliance.** Comply with the National Fire Protection Association (NFPA) 1710 and Riverside County Fire response standard of arriving to fire and medical emergency incidents within a four (4) minute drive time.
 - Policy SE-3.2 Water service and pressure.** Ensure that sufficient water service and pressure is available throughout the City for firefighting purposes, including continuing to require new development to provide necessary water mains, fire hydrants, and access for emergency vehicles and personnel.
 - Policy SE-3.3 Brush and weed control.** Maintain and enforce standards for weed and brush abatement and establish clearances around structures to minimize fire hazard risk.
 - Policy SE-3.4 Fire resistant materials.** Require the use of fire-resistant building construction materials to reduce the hazard of structure fires, within the developed areas of the City and at the urban-wildland interface.
 - Policy SE-3.6 New growth.** Address Indio’s existing and future fire service needs by planning and funding infrastructure to support the City’s growth and continuing to develop and staff new fire stations when and where they are needed to meet NFPA and County Fire response time standards. Ensure new fire stations are not located in geologic or flood hazard zones.
 - Policy SE-3.7 Response adequacy.** Ensure, to the maximum extent possible, that fire services, such as firefighting equipment and personnel, infrastructure and response times, are adequate for all sections of the City. To that end, continue to regularly evaluate specific fire hazard areas, and adopt reasonable safety standards, such as adequacy of nearby water supplies, fire-retardant roofing materials, fire-equipment accessible routes, clarity of addresses, street signage and street maintenance, and fire-hydrant inspection and maintenance.
 - Policy SE-3.8 Development applications.** Continue to review development applications for consistency with applicable fire and building code regulations, including emergency access/evacuation routes.

2 City of Indio. *City of Indio General Plan*. “Chapter 10: Safety.” <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234>. Accessed August 2022.

Indio Municipal Code

Building and construction within the City are subject to Title 15 of the *Indio Municipal Code*, which governs grading, fill, and excavation activities. The City's Building and Safety Division prescribes building codes pertaining to fire prevention hazards. The *Indio Fire Code* (Chapter 93) is based on the 2019 *California Fire Code*, with amendments, and sets minimum design and construction standards to enforce all ordinances and laws relating to the prevention or spread of fires, fire control, and fire hazards within the City.

At the local level, the City's Municipal Code contains the Fire Code, which prescribes regulations to enforce all ordinances and laws relating to the prevention or spread of fires, fire control, and fire hazards within the City.³

Title 3, Chapter 33, of the *Indio Municipal Code* sets forth the City's policy for the requirement of development impact fees upon new construction as a measure to fund local fire protection services. Specifically, Section 33.071 of Title 3, Chapter 33, identifies that development impact fees shall be paid to a separate fund to be used only for funding fire facilities and equipment within the City.

ENVIRONMENTAL SETTING

Existing Conditions

The RCFD provides fire protection and emergency services in cooperation with Cal Fire⁴ to the unincorporated areas of Riverside County and a number of partner cities under contract, including the City of Indio (City). RCFD also has cooperative, joint power agreements with other communities for fire services. The City entered into a cooperative agreement for fire-related services with the County of Riverside, through its Cooperative Fire Programs Fire Protection Reimbursement Agreement.⁵ This agreement ensures that the City will be provided with fire protection, disaster preparedness and response, fire prevention, rescue, hazardous materials mitigation, technical rescue response, medical emergency services, and public service assistance for the life of the agreement.

As shown in **Figure 5.12-1: Public Services within Proximity to Project Site**, there are five RCFD stations within 4 miles of the Project Site. These stations are RCFD Stations No. 80, No. 81, No. 87 (located north of the Interstate 10 [I-10]), No. 86, and No. 88 (located south of I-10). **Table 5.12.1-1: Fire Station Locations**, identifies the location and the distance of these fire stations in relation to the Project Site. As shown on **Table 5.12.1-1**, Station No. 80, on the southwest corner of Avenue 40 and Madison Street at 81-025 Avenue 40, is located across Avenue 40 from the Project Site.

3 City of Indio. Municipal Code. Title 9. Chapter 93: Fire Code.

4 Riverside County Fire Department. "Riverside County Fire Department Service Area." <https://www.rvcfire.org/about-us/service-area>. Accessed August 2022.

5 City of Rancho Mirage. *City of Rancho Mirage General Plan*. "Chapter 10: Safety." Page 10-3. <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234>. Accessed August 2022.

5.12.1 Fire Protection and Emergency Services

According to the City’s General Plan, response times are based on the standards within the National Fire Protection Association (NFPA) 1710 and RCFD, which gives a maximum four (4) minute drive time for all fire and medical emergency incidents.⁶ The closest fire station to the Project Site, RCFD Station No. 80, is equipped with one paramedic fire engine, one paramedic ambulance, and one reserve ambulance, and currently staffs 10 firefighters.⁷ In the event that Station No. 80 is responding to a fire and/or emergency call, Station No. 81 would respond to calls from the Project Site.

**TABLE 5.12.1-1
FIRE STATION LOCATIONS**

Station	Location	Distance from Project Site (Approximately)
RCFD Station No. 80	81-025 Avenue 40	0.05 miles
RCFD Station No. 81	37-955 Washington Street	2.1 miles
RCFD Station No. 86	46-990 Jackson Street	4.0 miles
RCFD Station No. 87	42-900 Golf Center Parkway	3.4 miles
RCFD Station No. 88	46-621 Madison Street	3.4 miles

Source: City of Indio. Fire Stations. Available at: https://www.indio.org/your_government/fire/fire_stations.htm. Accessed 2022; Google Maps. November 2022.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have a significant impact on public services, including fire and emergency services, if it would:

Threshold 5.12.1-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

Methodology

Analysis of fire protection services is concerned with response time and water fire-flow service to the area that is in question. Response times to an area have large influences on the ability for a fire department to serve a development, county, city, or other populated area in a timely and efficient

6 City of Indio. *City of Indio General Plan*. “Chapter 10: Safety.” Page 10-19. <https://www.indio.org/civicax/filebank/blobdload.aspx?t=47082.25&BlobID=29234>. Accessed August 2022.

7 City of Indio. “Fire Stations.” https://www.indio.org/your_government/fire/fire_stations.htm. Accessed October 2022.

manner. The further a fire station is away from a populated area, then it would be expected that response times would be longer and delayed.

An analysis of response times for fire departments serving a development should be completed in order to determine if the fire department has sufficient resources to arrive to a fire or other medical emergency in a timely fashion. Additionally, the ability to provide adequate service to an area was determined by the ability to provide fire-flow service to the area. Fire-flow is the amount of water required for firefighting purposes, usually delivered by a system of underground piping and fire hydrants.

Project Impacts

Threshold 5.12.1-1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?

Construction activities associated with the Project may result in temporary and partial closures of public roads surrounding the Project Site. Construction-related traffic on adjacent streets could potentially affect emergency access to and near the Project Site on a temporary basis. Construction activities would generate traffic associated with the movement of construction equipment, hauling of demolition and graded materials, and construction worker trips. Additionally, construction activities may involve temporary lane closures for utility and access gate improvements. Other implications of construction-related traffic include increased travel time due to flagging or stopping of traffic to accommodate trucks entering and exiting the Project Site during construction. As such, construction activities could potentially increase response times for emergency vehicles traveling to the Project Site and nearby uses along surrounding streets.

As discussed in **Section 5.14: Transportation and Traffic** of this Draft EIR, the preparation of construction traffic management plans would ensure the Project would not interfere with RCFD's accessibility to the surrounding roadways or their use. Emergency access to the Project Site would remain clear and unhindered during construction of the Project pursuant to requirements established by the City's Public Works and Engineering Department and/or the RCFD. Thus, emergency access impacts from construction activities associated with the Project would be less than significant with mitigation.

After development, the Project is expected to increase the number of calls for service in the area, such as calls for structure fires, car fires, electrical fires, as well as emergency medical service calls from the increase in residents and visitors. This increase may result in the increased demand for additional apparatus, equipment, and personnel to service the Project Site. Additionally, the development of the Project may increase demand on the RCFD's costs to maintain adequate service levels and response times.

5.12.1 Fire Protection and Emergency Services

The two closest stations to the Project Site that would provide primary response are RCFD Stations No. 80 and No. 81. Station No. 80 is located immediately south of the Project Site across Avenue 40, approximately 0.05 miles southeast of the Project Site at 81-025 Avenue 40 and contains one paramedic fire engine, one paramedic ambulance, and one reserve ambulance, and 10 firefighters on staff.⁸ Station No. 81 is approximately 2.1 miles west at 37-955 Washington Street and contains one type 1 fire engine with three personnel and medic squad with two personnel. Station No. 80 would be the primary station to serve the Project Site as it is the closest and would provide the quickest response times. In the event that Station No. 80 is responding to a fire and/or emergency call, Station No. 81 would respond to calls from the Project Site. Both fire stations would be well within the City's response time objective of four minutes or less for the Project Site perimeter.

As the City and region grows and continues to develop, there would be an increase in demand for services provided by the RCFD. All development projects within the City are required to comply with the most current adopted fire, building codes, and nationally recognized fire and life safety standards. The Project would be required to comply with the City Fire Code, which includes the 2019 CBC and the California Fire Code (Title 24, Part 9 of the California Code of Regulations), with amendments.

While the increased development and the introduction of new uses and residents such as those associated with the Project would result in additional demand for services provided by the RCFD, compliance with existing regulatory requirements during implementation of the Project would ensure that the City's infrastructure, including access, traffic circulation, water, and hydrant systems are adequate for both current RCFD needs as well as the needs of the Project. Thus, the Project would be required to install fire hydrants and provide adequate emergency access, including ingress and egress points, for emergency services in accordance with the City Fire Code.

Further, in order to ensure that the Project would not degrade existing facilities and response times provided by the RCFD to serve the needs of the Project, payment of applicable fees would be required as identified in the City's Municipal Code.⁹ The City's Development Impact Fees (DIFs) are based on capital costs for facilities and other capital assets needed to mitigate the impacts of additional development. In terms of fire facilities, DIFs take into account fire protection facilities, apparatus and vehicles by allocating costs for both existing and future fire department facilities to both existing and future development, so that the impact fees reflect new development's proportionate share of the total capital costs.¹⁰ Furthermore, the Project would be annexed into Community Facilities District (CFD) 2004-1, which provides funds for police, fire and emergency medical personnel and equipment.¹¹

8 City of Indio. "Fire Stations." https://www.indio.org/your_government/fire/fire_stations.htm. Accessed November 2022.

9 City of Indio Municipal Code. Title III. Section 33.071. Chapter 33.

10 City of Indio. *Development Impact Fee Study*. October 15, 2021. <https://www.indio.org/home/showpublisheddocument/1780/637878742761670000>. Accessed December 2022.

11 City of Indio. "Mello-Roos Community Facilities District." <https://www.indio.org/departments/finance/city-assessments-cfd-ad-lld/mello-roos-community-facilities-districts>. Accessed December 2022.

5.12.1 Fire Protection and Emergency Services

Lastly, as discussed in the Initial Study (see **Appendix A**), the Project Site is located within an area with minimal fire hazard risk according to Cal Fire.¹² Thus, the need for wildfire protection services to the Project Site is not likely required from RCFD.

Compliance with existing regulatory requirements during implementation of the Project would ensure that the City's infrastructure, including access, traffic circulation, water, and hydrant systems are adequate for both current RCFD needs as well as the needs of the Project. Thus, the Project would not increase response times or interfere with the RCFD's ability to provide adequate service levels. Impacts would be less than significant.

CUMULATIVE IMPACTS

A cumulative analysis for fire facilities evaluates whether impacts of the proposed Project and the related projects found in **Section 4.0: Environmental Setting**, when taken as a whole, would have a significant environmental impact on fire facilities. These impacts would include increased numbers of emergency and public service calls due to the increased presence of structures, traffic volume, and people within the area. Related projects within the City would be reviewed by the City and RCFD, and payment of development impact fees and the license tax would be required in accordance with Title 3, Chapter 33 Section 33.071 of the City's Municipal Code to minimize impacts to local fire services. Therefore, the combination of the Project and the other related projects would not adversely impact future demand on fire protection and emergency services provided by RCFD. Accordingly, implementation of the proposed Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Not significant.

12 California Department of Forestry and Fire Protection (CalFire). Fire and Resource Assessment Program. "Fire Hazard Severity Zones Maps." FHSZ Viewer. <https://egis.fire.ca.gov/FHSZ/>. Accessed May 2022.

5.12.2 LAW ENFORCEMENT SERVICES

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact law enforcement services provided by the Indio Police Department (Police Department).

REGULATORY SETTING

Local

Indio General Plan

Chapter 10: Safety of the City’s General Plan includes policies related to the police protection services that are needed to support the City.¹ It identifies the formulation of the City’s police protection services, the station that services the City, general statistics of the police force, programs that are currently in place and the plans to expand existing police services based on the City’s continued growth and development. This chapter also expands on factors that affect the effectiveness of police protection in the City. Chapter 10 of the City’s General Plan outlines the following relevant goals and policies related to law enforcement services:

Goal SE-1: Police Services. Excellent law enforcement and a reduction in criminal activities and focus on community policing.

Policy SE-1.1 Service levels. Maintain adequate police protection capabilities by retaining the current peace officer staffing positions, forecasting future demand, and providing additional staff, law enforcement equipment and technology acquisition, and facilities when fiscally appropriate and needed.

Policy SE-1.4 Crime Prevention Through Environmental Design. Promote Crime Prevention Through Environmental Design (CPTED) concepts, including, but not limited to:

Controlling access by creating real and perceptual barriers to entry and movement through the use of fences or landscaping to define site boundaries, clearly defined pathways to guide movement, gates or doors to limit access, and signs to define appropriate activities.

Maximizing opportunities to see and be seen through the use of lighting, windows, building orientation and location, proper selection of landscaping materials and regular maintenance, furniture arrangements, surveillance equipment, or other security or design measures.

Clearly defining ownership and encouraging maintenance of properties through measures such as landscaping, front porches, fencing, variations in paving materials, or other elements to distinguish between private and public spaces. Display signs to establish ownership and keep

¹ City of Indio. *City of Indio General Plan*. “Ch. 10: Safety.” <https://www.indio.org/civicax/filebank/blobdload.aspx?t=46234.64&BlobID=29114>. Accessed September 2022.

buildings, yards, gardens, sidewalks, and other features well maintained, clean, and in working order.

Policy SE-1.5 Neighborhood watch. Continue to support the formation of neighborhood watch groups.

Indio Municipal Code

New construction within the City of Indio is subject to Title 3, Chapter 33 of the *Indio Municipal Code*, which sets policy for the requirement of an imposed tax on new construction to support the increased demand for public services and infrastructure improvements, such as police protection services.²

ENVIRONMENTAL SETTING

Existing Conditions

The City of Indio Police Department (“Police Department”) provides law enforcement services to the City. The Police Department provides emergency and non-emergency police response, routine police patrols, investigative services, traffic enforcement, and traffic investigation services. Police services are provided from the City’s Police Headquarters located at 46800 Jackson Street in Indio as shown in **Figure 5.12-1: Public Services within Proximity to Project Site**. This station is approximately 4 miles southeast of the Project Site.

The Police Department is composed of the Field Services Division, the Support Services Division, and the Investigative Services Division.³ The Field Services Division is responsible for controlling crime and public safety issues, investigating traffic collisions, enforcing traffic violations, participating in community outreach efforts, operating the K-9 Teams, Code Enforcement, and the School Resource Officer (SOR) program. The support Services Division is responsible for supporting the Department’s policing activities and initiatives. The Division consists of Police Investigations, the Communications Unit, Information Technology (IT), and Property and Evidence Unit.

The force currently consists of 81 sworn officers and 43 professional staff for a total of 124 full-time staff.⁴ As of 2022, the City’s population was estimated at 89,137.⁵ This would provide a ratio of 0.91 officers per 1,000 residents, just below the commonly accepted ratio of one officer per 1,000 residents. The Communications Unit handles a high volume of both non-emergency and emergency phone calls 24 hours a day.⁶ Any 911 call placed from a landline phone, or from a cell phone within the city limits, is directed to the Communications Center located within the Indio Police Department. Police response

2 City of Indio Municipal Code. Title 3. Section 33.068 (C).

3 Indio Police Department. “Divisions.” <https://www.indi opd.org/divisions>. Accessed October 2022.

4 Indio Police Department. *IPD Annual Reports (2019-2020)*. <https://www.indi opd.org/about-ipd/ipd-annual-reports>. Accessed October 2022.

5 State of California Department of Finance (DOF). “E-5 Population and Housing Estimates 2020-2022.” <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed September 2022.

6 City of Indio. “Indio Police Department.” <https://www.indi opd.org/divisions/support-services-division/police-communications>. Accessed October 2022.

times can vary significantly and are generally dependent upon various factors such as call type and the availability and location of the nearest patrol unit.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have significant impacts on public services, including law enforcement services, if it would:

Threshold 5.12.2-1 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 law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services.

Methodology

Analysis of law enforcement services incorporates a review of response times and officer-to-population service ratios. Response times to an area influence the ability for law enforcement to serve a population, city, or other populated area in a timely and efficient manner. Law enforcement officers are typically mobile, which allows them to respond more quickly than if they were stationed at one particular place.

Law enforcement agencies also use standardized officer-to-population ratios to determine if they are capable of providing adequate service to an area. If a new development is built and the population in the area is increased, the local law enforcement agency's ability to properly provide service to the area may be affected.

Project Impacts

Threshold 5.12.2-1: 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 law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services?

Construction activities associated with the Project may result in temporary and partial closures of public roads surrounding the Project Site. Construction-related traffic on adjacent streets could potentially affect emergency access to and near the Project Site on a temporary basis. Construction activities would generate traffic associated with the movement of construction equipment, hauling of demolition and graded materials, and construction worker trips. Additionally, construction activities may involve temporary lane closures for utility and access gate improvements. Other implications of construction-related traffic include increased travel time due to flagging or stopping of traffic to accommodate trucks entering and exiting the Project Site during construction. As such, construction activities could

potentially increase response times for emergency vehicles traveling to the Project Site and nearby uses along surrounding streets.

As discussed in **Section 5.14: Transportation and Traffic** of this Draft EIR, the preparation of construction traffic management plans would ensure that the Project would not interfere with the Sheriff Department's accessibility to the surrounding roadways or their use. Emergency access to the Project Site would remain clear and unhindered during construction of the Project pursuant to requirements established by the City's Public Works and Engineering Department and/or the Police Department. Thus, emergency access impacts from construction activities associated with the Project would be less than significant with mitigation.

After development, the Project is expected to increase demand for law enforcement services and facilities provided by the Police Department. As a result, additional law enforcement equipment, facilities, and personnel would potentially be required to accommodate the demands of the Desert Retreat Specific Plan Area upon implementation of the Project.

The Project would involve development of up to 1,500 single-family residential dwelling units. Response times are not anticipated to be significantly impacted since the Project would be located within an area of the City currently served by the Police Department.

The estimated 2022 population for the City of Indio is 89,137 residents.⁷ With implementation of the Project, up to 2,700 residents⁸ would be added to the City's current population, increasing the City's population to 91,837 residents. The resulting officer-to-resident ratio would be 0.88 officers per 1,000 people, which is slightly less than the commonly accepted ratio of one officer per 1,000 residents. Therefore, the Project would be required to include payment of the City's development impact fee for law enforcement services, or its equivalent, in order to maintain acceptable levels of law enforcement services in the area. The City's Development Impact Fees (DIFs) are based on capital costs for facilities and other capital assets needed to mitigate the impacts of additional development. In terms of police facilities, DIFs take into fees for police facilities, vehicles, and equipment by allocating costs for both existing and future Police Department facilities to both existing and future development, so that the impact fees reflect new development's proportionate share of the total capital costs.⁹ Furthermore, the Project would be annexed into Community Facilities District (CFD) 2004-1, which provides funds for police, fire and emergency medical personnel and equipment.¹⁰

7 DOF. "E-5 Population and Housing Estimates 2020-2022." <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed September 2022.

8 See **Section 5.11: Population and Housing** for a detailed description of the estimated household size for the proposed Project. 1,500 dwelling units x 1.8 persons per dwelling unit = 2,700 residents.

9 City of Indio. *Development Impact Fee Study*. October 15, 2021. <https://www.indio.org/home/showpublisheddocument/1780/637878742761670000>. Accessed December 2022.

10 City of Indio. "Mello-Roos Community Facilities District." <https://www.indio.org/departments/finance/city-assessments-cfd-ad-lld/mello-roos-community-facilities-districts>. Accessed December 2022.

Accordingly, impacts would be less than significant.

CUMULATIVE IMPACTS

A cumulative analysis for law enforcement services evaluates whether impacts of the proposed Project and the related projects found in **Section 4.0: Environmental Setting**, when taken as a whole, would have a significant environmental impact on law enforcement services. These impacts would include increased numbers of requests for law enforcement services due to the increased presence of structures, traffic volume, and people within the area. Related projects within the City would be reviewed by the City and the Police Department and payment of the City's tax on new construction in accordance with the Title 3, Chapter 33 of the City's Municipal Code to minimize impacts to local police services. Therefore, implementation of related projects would not adversely impact future demand on law enforcement services provided by the Police Department. Accordingly, implementation of the proposed Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE OF MITIGATION

Not significant.

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact library services and facilities within the City of Indio (City), specifically the Indio Public Library (Library), and within the region.

REGULATORY SETTING

Regional and Local

City of Indio General Plan

The Infrastructure and Public Facilities Element of the City’s General Plan includes policies pertaining to library services that serve the City.¹ It identifies the formulation of the City’s library system and its future plans to accommodate the City’s changing demographics, increasing population, and shift of land uses. The Element establishes the goal and policy of ensuring that the City maintains adequate services and convenient access for all members of the community.

Goal IE-7: Educational Opportunities. High-quality educational opportunities for lifelong learning.

IE-7.3: Library space. Continue to work with Riverside County to ensure adequate library space, services, books, and other resources are available to residents and students.

Indio Municipal Code

Title 3, Chapter 33, Section 33.065. This section of the Indio Municipal Code sets policy for the requirement of a development fee on new construction to support the increased demand for public services and infrastructure improvements, such as library services.²

ENVIRONMENTAL SETTING

Existing Conditions

There are 38 library branches within the Riverside County Library System (RCLS) and two bookmobiles that serve a population of nearly 2.5 million residents within the County of Riverside.³ Additionally, College of the Desert also has an on-campus library that is open to the public and affiliated with the RCLA. Only the Indio branch of the RCLS is in the vicinity of the Project, located at 200 Civic Center Mall. The Indio Library is approximately 3.5 miles southeast of the Project Site; the Library’s current location

1 City of Rancho Mirage. *General Plan 2017 Update*. “Chapter 9: Public Services and Facilities.” Adopted November 2017.

2 City of Indio Municipal Code. Title III. Chapter 33. Section 33.065.

3 Riverside County Library System. “About Us.” <http://rivlib.info/website/about-us-685>. Accessed November 2022.

in relation to the Project Site is shown on **Figure 5.12.1-1: Public Services within Proximity to Project Site**.

The Indio Public Library currently operates every day except Friday and Sunday with varying hours and houses more than 89,000 items.⁴ The library is also home to the office of the Family Literacy Coordinator, the office of the East Mobile Resource Van, and a Friend's of the Library bookstore. The Library offers information assistance, children's programs, literacy tutoring, English as a Second Language classes, internet access, word processors, large print books, audio books, DVDs and videos, music CDs and cassettes, newspapers and magazines, Live Online Homework Help, tax forms, copiers, and downloadable audio books.⁵

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have significant impacts on public services, including library services, if it would:

Threshold 5.12.4-1 **Result in capacity or service level problems, or result in substantial adverse physical impact associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios, or other performance objectives for library services.**

Methodology

Typically, the need for library services depends on the number of people a library is serving and the number of volumes within the library. Information was gathered from publicly available information and personal communication with staff from the Library in order to provide level of service analysis.

Project Impacts

Threshold 5.12.4-1: **Would the project result in capacity or service level problems, or result in substantial adverse physical impact associated with the provision of new or physically altered library facilities in order to maintain acceptable service ratios, or other performance objectives for library services?**

There are no specific requirements for quantifying the community's needs for public library services. The Library's services are assessed on an on-demand basis as a function of demographics measured against existing library resources. Implementation of the Project would add up to approximately 2,700 new

4 Aaron Espinosa, Library Director. Rancho Mirage Public Library. Email correspondence dated April 29, 2019.

5 Riverside County Library System. "Indio Branch." https://riverside.networkofcare.org/aging/services/agency.aspx?pid=RIVERSIDECOUNTYLIBRARYSYSTEMIndioBranchLibraryLiteracyOffice_38_1_0. Accessed October 2022.

residents who would have access to the Library. This increase in residents is likely to result in an increased demand on the Library for services provided within their facilities.

According to the City's General Plan EIR, growth forecasts for the City would suggest an increase in the demand for library services.⁶ A substantial portion of the Library's inventory consists of an "E-Content" based system, meaning more space is available for other uses, such as lounging, computer rooms, and common areas for the observatory, recreational activities, events, and lectures.

The Library relies on its budget from private fund sources and taxed-based revenue from the City (development impact fees). Therefore, the Project would require payment of applicable development impact fees for library services in order to maintain library services in the area. The City's Development Impact Fees (DIFs) are based on capital costs for facilities and other capital assets needed to mitigate the impacts of additional development. In terms of public buildings (includes library facilities), DIFs take into account the existing level of service for these facilities, defined as the City's current per-capita investment in public buildings and general government vehicles serving the existing City.⁷ Future library facilities in the City would be subject to review by the County, and adherence to federal, state, and local building codes and regulations. Accordingly, impacts would be less than significant.

CUMULATIVE IMPACTS

Since future residents and visitors at the Project Site would be utilizing library services from the Library, implementation of the Project in combination with related projects found in **Section 4.0: Environmental Setting**, could contribute to potentially significant cumulative impacts on library facilities and services. Related projects developed within the City would be required to pay development impact fees as required by the City Municipal Code Section 33.065. Cumulative impacts to the library system would be mitigated through the license tax and development impact fees that are imposed upon new construction within the City. Therefore, to the extent that library facilities are expanded to serve cumulative development, no significant impacts to library services and facilities are anticipated to occur. Accordingly, implementation of the proposed Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Not significant.

6 City of Indio. *City of Indio General Plan EIR*. "Chapter 4.14." Page 4.14-24. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed November 2022.

7 City of Indio. *Development Impact Fee Study*. October 15, 2021. <https://www.indio.org/home/showpublisheddocument/1780/637878742761670000>. Accessed December 2022.

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) describes and evaluates the potential impacts of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to existing and future parks and recreation facilities that would be available to the Project Site. Since the Project Site is located within the City of Indio (City) and the County of Riverside, the potential for adverse impacts to recreational facilities was evaluated based on current facilities and existing uses of recreational parks and facilities in the City and County.

REGULATORY SETTING

State

Quimby Act

Government Code Section 66477, more commonly referred to as the Quimby Act, was enacted by the California legislature in 1965 to provide parks for the growing communities in California. The Quimby Act authorizes cities to adopt ordinances requiring the dedication of land or the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes.¹ The Quimby Act also specifies acceptable uses and expenditures of such funds.

The City Municipal Code Section 156.130 through 156.140 (Park and Recreation Land Dedication and Fees) establishes park improvement and development impact fees, parks and recreation fees and the process for dedications. Buildout of the City’s 2040 General Plan would not facilitate growth or development beyond the capacity of existing and planned parks to meet forecast demand.²

Regional and Local

Indio General Plan

The Parks, Recreation, and Open Space Element of the City’s General Plan includes policies related to the parks and recreational services that are needed to support the City and its residents.³ It defines and establishes goals, policies, and programs toward preserving and effectively managing natural resources in the City of Indio. The Element covers issues relating to the City’s existing parks and recreational facilities, urban agricultural sites, and parkland classifications. These resources contribute to the quality

1 California Government Code, Sections 66477.

2 City of Indio. *City of Indio General Plan*. “Parks, Recreation, and Open Space Element.” <https://www.indio.org/home/showpublisheddocument/906/637874287857070000>. Accessed October 2022.

3 City of Indio. *City of Indio General Plan*. “Parks, Recreation, and Open Space Element.” <https://www.indio.org/home/showpublisheddocument/906/637874287857070000>. Accessed October 2022.

of life for City residents and attract substantial tourism. The following goals and policies are related to the proposed Project:

- Goal PR-1** **Open Space Network.** A comprehensive open space network that balances recreation, wellness, and habitat protection.
- PR-1.1** **Accessibility to open space.** Ensure that areas designated as open space for public use remain accessible to users of all ages and abilities.
 - PR-1.2** **Balance conservation efforts with accessible open space.** Balance public access to natural open space resources with habitat and wildlife conservation efforts by locating trail easements within the less environmentally-sensitive areas and directing users to remain on designated trails through signage or fencing. Implement the Coachella Valley Multi-Species Habitat Conservation Plan.
 - PR-1.4** **CV Link spurs.** Implement development of “spurs” that connect CV link to neighborhoods along Avenue 48 and Madison Street, and in North Indio. Considerations should be given to add CV Link Spurs on Hwy 111 and Downtown Indio.
 - PR-1.5** **Trail connections.** Encourage projects to provide connections to existing trails, and include mini parks, dog parks, community gardens, or other recreational features within the design.
 - PR-1.6** **Regional open space.** Support State and regional efforts to create regional open space networks.
- Goal PR-2** **High-Quality Parks.** High-quality parks and recreational facilities that promote community health and are safe and convenient to access.
- PR-2.1** **Park ratio.** Work to achieve a ratio of 3 acres of public parks per 1,000 residents and place a park or recreation amenity within one-half mile of all Indio residents. Maintain adequate land dedication requirements and/or development fees for new development to meet the park ratio.
 - PR-2.5** **Design for heat.** Design cool parks and playgrounds to facilitate activity in hot weather conditions by including shade structures, shade trees, water fountains, splash pads, lighting for night play, and other design features that mitigate heat.
 - PR-2.6** **Design for safety.** Utilize CPTED design techniques, such as providing clear lines of sight, adequate lighting, and wayfinding signs, to ensure parks are safe. Face residential and commercial buildings towards new parks.
 - PR-2.8** **New development.** Ensure that new residential developments provide adequate on-site recreational and open space amenities consistent with the values and standards of the community and the needs of new development. Require projects to establish mechanisms, such as a Community Facilities District, to adequately maintain new parks and recreational facilities.

- Goal PR-3** **Quality Trails Network.** Trails sited to ensure compatibility with natural resource protection and to encourage physical activity.
- PR-3.1** **Trails network.** Support a comprehensive and cohesive system of recreational trails with linkages to the CV Link, key centers, parks, recreation, and open space areas.
- PR-3.3** **Dedicate space for trails.** Require new development projects to dedicate easements for trails, trailheads, and other needed improvements, where appropriate. Dedications may include paseos, urban trails, greenways, and/or Class I bicycle facilities that connect to centers, schools, parks, and open space areas. Seek opportunities to enhance them with informational kiosks, public art, outdoor fitness equipment, and rest areas.

Indio Municipal Code

In relation to recreational and park resources, the *Indio Municipal Code* includes various provisions to ensure that these resources are provided in consistency with the Conservation and Open Space Element. Title 3, Chapters 33 Section 33.068 identifies City measures that will provide funding for recreation and park facilities as a result of the increased demand on existing services. Development Impact Fees are used as a mitigation measure to collect additional funds from new development to finance parks and recreational facilities and improvements. Lastly, individual project proponents are required to pay a recreation and park fee in-lieu as a condition of approval for a tentative map. The City has adopted Quimby Act standards for local parks and have established a ratio of 3 acres of park area per 1,000 residents for how facilities funding is planned for and implemented.⁴ The Project will comply with these requirements to maintain consistency for recreational needs and operations within the Project Site.

ENVIRONMENTAL SETTING

Existing Conditions

Regional

The Riverside County Regional Park and Open-Space District (Riverside County Parks) operate county-wide programs that encourage and provide recreational opportunities, as well as to preserve and protect the region's natural, cultural, and historical characteristics. Riverside County Parks is broken down into three bureaus: Parks & Resources, Planning & Development, and Business Services.⁵

The Parks & Recreation Bureau is responsible for providing an array of recreational activities for the County's residents, such as aquatic centers, parks and playgrounds, sport complexes, campgrounds, and special events. The Resources Bureau is dedicated to preserving the County's natural resources, ensuring that these resources are taken into account during planning and construction activities, and to promoting

⁴ The City of Indio Municipal Code. Title III. Chapter 33. Section 33.068.

⁵ Riverside County Parks. "About Us." <https://www.rivcoparks.org/about-us/>. Accessed October 2022.

community outreach and educational opportunities. The Business Operations Bureau oversees the operation, administrative, and financials aspects of Riverside County Parks.

Joshua Tree National Park and Mount San Jacinto State Park are located within Riverside County. These parks also provide a range of recreational opportunities for the region, such as hiking trails, campgrounds, and fishing. Joshua Tree National Park lies to the northeast of the City with the Little San Bernardino Mountains running through the southwestern portion of the park. Joshua Tree National Park is operated and maintained by the National Park Service, which has the mission to revitalize and conserve the Nation’s natural resources through securing properties. Mount San Jacinto State Park is located approximately 25 miles to the west of the City of Indio and encompasses the San Jacinto Mountains - the second highest mountain range in southern California.⁶

The Riverside County Regional Park and Open-Space District operates high-quality recreational opportunities and the preservation of the County’s natural, cultural, and historical heritage. The County’s eight major parks in and around the Coachella Valley are summarized in **Table 5.13-1: County of Riverside Parks and Recreation Facilities**. County of Riverside Parks and Recreation Facilities.

TABLE 5.13-1 COUNTY OF RIVERSIDE PARKS AND RECREATION FACILITIES			
Facilities	Location	Acres	Features
<i>National Park Service/Federal Lands</i>			
Cleveland National Forest (USFS)	30.2 miles southwest of the Project Site	90,749	Equestrian facilities / trails, Fishing, Hunting / shooting, Hiking trails, Overnight camping, Offroad vehicle rec area, Picnic facilities
Joshua Tree National Park (BLM)	10.0 miles northeast of the Project Site	668,877	Equestrian facilities / trails, Hiking trails, Overnight camping, Picnic facilities
San Bernardino National Forest (USFS)	31.2 miles northwest of the Project Site	241,600	Fishing, Historical features, Hunting / shooting, Hiking trails, Overnight camping, Offroad vehicle rec area, Picnic facilities
Santa Rosa/San Jacinto Mtns Nat’l Monmnt. (BLM)	9.9 miles southwest of the Project Site	271,492	Equestrian facilities / trails, Hunting / shooting, Hiking trails, Overnight camping, Offroad vehicle rec area, Picnic facilities
<i>State Parks</i>			
Anza-Borrego Desert State Park	23.0 miles south of the Project Site	38,489	Historical features, Equestrian facilities / trails, Hiking trails, Overnight camping, Picnic facilities, Visitor center
Indio Hills Palms State Park	3 miles northwest of the Project Site	5,661	Undeveloped, “No marked access rds”
Mount San Jacinto State Park	24.9 miles west of the Project Site	14,020	Equestrian facilities / trails, Hiking trails, Overnight camping, Primitive Camping, Picnic facilities, Visitor center, Nature preserve

6 California Department of Parks and Recreation. “Mount San Jacinto State Park.” http://www.parks.ca.gov/?page_id=636. Accessed October 2022.

**TABLE 5.13-1
COUNTY OF RIVERSIDE PARKS AND RECREATION FACILITIES**

Facilities	Location	Acres	Features
Salton Sea State Recreational Area	26.0 miles southeast of the Project Site	9,611	Boating & water rec, Fishing, Overnight camping, Picnic facilities, Swimming, Primitive Camping, Visitor center
<i>County Parks</i>			
Lake Cahuilla Recreational Area	8.7 miles south of Project Site	710	Equestrian facilities/trails, fishing, hiking trails, overnight camping, and swimming facilities
<i>Desert Recreational District</i>			
Canal Regional Park	11.4 miles southeast of Project Site	369	Picnic facilities, radio control plane field
Coral Mountain Regional Park	9.5 miles south of Project Site	600	Under development; planned to include interpretive trails, picnic areas, and a learning center
Mecca Community Park & Community Center	16.7 miles southeast of Project Site	5	Community center, picnic facilities, swimming, sports fields/facilities
Mecca Hills Mini Park	16.7 miles southeast of Project Site	N/A	Picnic facilities, playground/tot lot
Thousand Palms Park & Community Center	8.4 miles northwest of Project Site	9	Community center, picnic facilities, playground/tot lot, sports fields/facilities
Desert Regional Park	7.9 miles southwest of Project Site	280	Planned
Indio Hills Park	5 miles northwest of Project Site	2,200	Picnic facilities, playground, sports fields, open space

Sources: County of Riverside General Plan Draft EIR, Section 4.16 Parks and Recreation. Table 4-16B: Existing and Proposed Parks and Recreation in Riverside County. February 2015 (Updated). Available at: https://planning.rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/DEIR%20No.%20521.pdf. Accessed October 2022; Abbreviation: N/A = not available.

Local

The City's Public Works Parks & Facilities Division is responsible for maintaining parks while the Desert Recreation District (DRD) is responsible for providing recreational facilities. The City provides recreational facilities for its residents and visitors, including golf courses, tennis and basketball courts, playgrounds, hiking trails, and campgrounds and recreational vehicle (RV) parks. According to the City's Parks, Recreation, and Open Space Element, the City maintains sixteen existing parks and owns several other properties which may be developed as parks in the future.⁷ As summarized in **Table 5.13-2: Existing Park and Recreation Facilities**, the City provides parks that are accessible to the local community, including mini-parks, local parks, community parks, and multi-city recreation facilities.

While there is currently a deficit with respect to meeting the 3.0 acres per 1,000 population standard, compliance with goals, policies, and implementation actions set forth in the GPU would improve park

⁷ City of Indio. *City of Indio General Plan*. "Parks, Recreation, and Open Space Element." Page 7-2. <https://www.indio.org/home/showpublisheddocument/922/637874289450770000>. Accessed October 2022.

and recreation facilities to meet the demands associated with growth accommodated under the GPU.8 With these planned improvements, forecast growth would not result in substantial physical deterioration of the park and recreational facilities. In addition, all new development must adhere to General Plan goals and policies and be required to provide parkland or in-lieu fees, as required by the Municipal Code.

**TABLE 5.13-2
EXISTING PARK AND RECREATION FACILITIES**

Park Name	Park Type	Size (acres)	Amenities
Burr Street Park	Mini	2.5	Basketball court, playground equipment, picnic grounds
Cahuilla Park	Neighborhood	4	Basketball court, open turf, picnic grounds, playground equipment, group shelter
Dominguez Park	Neighborhood	3.3	Basketball court, loop walk, open turf, picnic grounds
Doug York Plaza	Mini	0.25	Open turf and group shelter
Dr. Carreon Park	Neighborhood	2.4	Basketball court, loop walk, open turf, playground equipment, public art, restrooms
George S. Patton Park	Neighborhood	4.3	Basketball court, tennis court, open turf, playground equipment, restrooms, and group shelter
Hjorth Street Park	Neighborhood	3	Loop walk, open turf, picnic grounds
Marshall Parkway	Mini	0.5	Garden and playground equipment
Miles Avenue Park	Community	16	Basketball court, open turf, picnic grounds, playground equipment, restroom, event space, and group shelter
Mulligan Dog Park	Neighborhood	2	Dog park with fenced dog run and benches
Municipal Golf Course	Special Use	46	Driving range, clubhouse/pro shop, putting green, 3 par course
North Jackson Park and Rotary Field	Community	4.5	Softball fields, basketball court, racquetball, tennis court, concessions with restrooms, loop walk, picnic grounds, playground equipment, and group shelter
Shields Park	Mini	1	Loop walk and picnic grounds
South Jackson Park and Davis Field	Community	17.5	Soccer field, racquetball, tennis courts, concessions with restrooms, open turf, picnic grounds, playground equipment, public art, event space, and group shelter. It also includes the Pawley Pool Family Aquatic Complex, owned by the Desert Recreation District. This complex features a lap pool, wading pool, and splash pad
Station 87 Dog Park	Mini	0.8	Dog park with fenced dog run, separation for small and large dogs, benches, water and shade structure
Yucca Park	Neighborhood	1	Basketball courts, picnic grounds, playground equipment, and group shelter

8 City of Indio. *City of Indio General Plan Update EIR*. "Chapter 4.14." Page 4.14-9. Accessed October 2022.

**TABLE 5.13-2
EXISTING PARK AND RECREATION FACILITIES**

Park Name	Park Type	Size (acres)	Amenities
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Source: City of Indio General Plan. Parks, Recreation, and Open Space Element. Page 7-3. Table 7-1. Available at: <https://www.indio.org/home/showpublisheddocument/922/637874289450770000>. Accessed October 2022.

Bikeways and Trails

The City has numerous bikeways, trails, and golf cart travel access ways all throughout the City. These are implemented as part of the goals within the Parks, Recreation, and Open Space Element to meet the active and passive recreation needs of all residents and visitors of the City.

Bicycle facilities are designed according to the Class I, II, and III categories in order to provide a diverse range of bicycle accessibility options for the community and to encourage other modes of transportation to that of the automobile. These paths are designed to maximize safety and ease of use by both bicyclists and pedestrians.

The City is also exploring opportunities to provide a network of recreational trails for residents and visitors to enjoy. Existing pedestrian hiking trails are located generally northeast of Golf Center Parkway, as well as along Avenue 38 adjacent to the Talavera/Andreas Ranch development. The following trail expansion projects are proposed through the City's General Plan:⁹

- Development of CV Link and trail spurs;
- The Desert Retreat Trailhead located at Golf Center Parkway and Ave 42;
- Internal pedestrian trails and trailheads connecting to the Bureau of Land Management (BLM) lands in and surrounding the Virada Specific Plan area;
- Hiking and pedestrian trails within the Indio Trails Specific Plan area;
- Hiking and pedestrian trails within the Citrus Ranch Specific Plan area; and
- Recreational trails within the Indio Ranchos Polo Resort Specific Plan area and Indio Ranchos Polo Estates Specific Plan area.

Lastly, golf cart travel is a very prominent mode of transportation within the Coachella Valley region for residents to access different neighborhoods, golf courses, and commercial and office facilities. These paths are generally designated within automobile traffic lanes as well as contained within separate paths linked to recreational fields and bicycle paths throughout the City. The Coachella Valley has been a leader in providing golf cart pathways as part of the off-street and on-street system. The CV Link project will

⁹ City of Indio. *City of Indio General Plan*. "Parks, Recreation, and Open Space Element." Page 7-2. <https://www.indio.org/home/showpublisheddocument/906/637874287857070000>. Accessed October 2022.

provide golf cart accessibility for the entire region, connecting most of the cities and providing an off-street facility for longer distance golf cart trips.¹⁰

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance on park and recreational resources (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact if it would:

- Threshold 5.13-1:** 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 5.13-2:** Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Methodology

An assessment of the impact of the Project on park and recreation facilities in the City is provided below. The Project's assessment is based on City planning standards for park and recreation facilities and the increase in population that would result from the Project.

The potential for cumulative impacts associated with parks and recreation was assessed, based upon consideration of the Project and related projects in the City and its SOI. These related projects are identified in **Section 4.0: Environmental Setting**.

Project Impacts

- Threshold 5.13-1:** 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?

The Project would develop up to 1,500 residential dwelling units that would generate approximately 2,700 residents¹¹ within the Project Site. The Project includes substantial open space in the form of perimeter buffers, landscaped parkways, linear paseos, and a community clubhouse with outdoor recreation amenities. All are easily accessed by residents using the interconnected walkway system. As the Project Site is located within the City, it would have direct impacts to the City's recreational and park facilities.

10 Coachella Valley Link. "Transforming Active Transportation in the Coachella Valley." <https://coachellavalleylink.com/>. Accessed October 2022.

11 See Section 5.11: **Population and Housing** for a detailed description of the estimated household size for the proposed Project. 1,500 dwelling units x 1.8 persons per dwelling unit = 2,700 residents.

Open space areas within the Project would complement the natural desert context of the Coachella Valley and would incorporate public art and water features combined with enhanced vegetation providing recreational opportunities within the development. The Project is designed around a central 26-acre recreational center that would contain amenities such as a fitness center, a movement studio, locker rooms, a covered outdoor pool, billiards tables, a golf simulator, arts and crafts room, game room, multipurpose event lawn, sports courts, water features, outdoor kitchen, firepit seating ball room, catering kitchen, terrace, and indoor coffee bar with an outdoor social bar. Paseos would provide an interconnected system of open spaces that link individual residences throughout the community with one another, the perimeter public sidewalk system and the central clubhouse amenity. These provide separated amenity corridors that encourage walking and biking throughout the community. The nature of development within the Project would be a master planned community that would have a variety of private streets and recreational open space available to onsite residents.

Open space and landscaping would be used to provide people with places to sit, relax, and gather. This incorporation of parkland and recreational amenities within the Project Site would minimize the demand of the future on-site residents on the City's existing parks and recreational facilities. The recreational amenities are integrated into the design of the Project and would be constructed consistent with City guidelines.

This increase in population would incrementally increase the demand on existing neighborhood and community parks in the City. This increased demand placed on recreational on park facilities would be met through a combination of on-site, improvements, private recreation, as well as payment of fees to the City. As the Project Site is entirely within the City's jurisdiction, the City's in-lieu parkland fee will be paid, subject to partial credit for the public and private recreational facilities constructed within the Project. As such, with the integrated open space and recreational facilities provided on the Project Site and the required development fees provided to the City for increased maintenance of public recreational facilities, the Project Site would have a less than significant impact on neighborhood and regional parks and other recreational facilities.

Threshold 5.13-2: 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?

The Project would include recreational amenities throughout the development which would consist of open space in the form of perimeter buffers, landscaped parkways, linear paseos, and a community clubhouse with outdoor recreation amenities. These recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project.

The Project is designed around a central 26.1-acre recreational center and paseos throughout the development to provide a connected system of open spaces between the residences. Open space requirements will be met through a combination of land dedication, improvements, private recreation, and in-lieu fees. The following parks and recreation aspects shall be included within the Project Site:

- Landscaping
- Paseos
- Public sidewalk system
- Central Recreation Amenity
- Bicycle trails
- Golf cart linkages

The following types of facilities would be included within the Community Clubhouse and Recreation Center: a fitness center, a movement studio, locker rooms, a covered outdoor pool, billiards tables, a golf simulator, arts and crafts room, game room, multipurpose event lawn, sports courts, water features, outdoor kitchen, firepit seating ball room, catering kitchen, terrace, and indoor coffee bar with an outdoor social bar.

The short-term impacts and Mitigation Measures associated with the construction of these facilities as part of the Project are addressed in this Draft EIR (see **Sections 5.2: Air Quality; 5.5: Energy, 5.6: Geology and Soils; 5.7: Greenhouse Gas Emissions; 5.8: Hydrology and Water Quality; 5.10: Noise; and 5.14: Transportation and Traffic**). Construction of the recreational amenities would not result in significant impacts but would contribute to the overall construction impacts. The Project as proposed would not require the construction or expansion of existing recreation facilities. Impacts would be less than significant.

CUMULATIVE IMPACTS

A cumulative analysis for recreation facilities evaluates whether impacts of the proposed Project and the related projects found in **Section 4.0: Environmental Setting**, when taken as a whole, would have a significant environmental impact on recreation facilities. The list of related projects, presented in **Section 4.0: Environmental Setting**, would be subject to development impact fees, and developer in-lieu fees, or their equivalent, as established in the City's Municipal Code, and by the County. Development of the related projects would not demand any unanticipated construction or expansion of park and recreational facilities within the City or County as those amenities would be incorporated within each Project design, and in each jurisdiction's General Plan. As noted above, the planned future parks in the City are adequate to serve full buildout of the City. Therefore, the cumulative impacts on parks and recreation would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

5.14 TRANSPORTATION AND TRAFFIC

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the proposed Desert Retreat Specific Plan Project (Project) to result in transportation and traffic impacts within the Coachella Valley, the Indio (City), and surrounding communities. Information from the following study of the Project Site and surrounding area is incorporated into this section:

- Desert Retreat Specific Plan Project, Transportation Study, Fehr and Peers, February 2023.

The complete Transportation Study is included in the Appendices to this Draft EIR (**Appendix K**). Prior to the preparation of this Draft EIR, an Initial Study (IS) (included in **Appendix A** of this Draft EIR) was prepared using the CEQA Guidelines Appendix G Environmental Checklist Form to assess potential environmental impacts associated with traffic and transportation. The following IS screening criteria related to traffic and transportation do not require additional analysis in this Draft EIR:

- Potential impacts related to inadequate emergency access were evaluated and determined to be “Less than Significant” in the Initial Study. Access to the Specific Plan Area is proposed from the major streets bordering the site. The proposed Specific Plan would not result in inadequate emergency access to the site and would not impede existing emergency access to the existing surrounding uses. Therefore, this issue is not addressed any further within this section.

Impacts found to be less than significant are further discussed in **Section 8.1: Effects Not Found to be Significant** of this Draft EIR.

REGULATORY SETTING

State

SB 743

As a result of SB 743, the new recommended metric in the CEQA guidelines for transportation impacts is VMT per capita. The legislative intent of SB 743 is to balance the needs of congestion management with statewide goals for infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.

Congestion Management Program

To address public concern that traffic congestion was impacting the quality of life and economic vitality of the State, in 1990, Section 65089 of the California Government Code was adopted to require each county to prepare and adopt a CMP. The intent of the CMP is to provide the analytical basis for transportation decisions. The CMP meets federal requirements for a Congestion Management System (CMS) as required by the Intermodal Surface Transportation Efficiency Act of 1991 and continued in the Transportation Equity Act for the 21st Century in 1998, and SAFE, Accountable, Flexible, and Efficient

Transportation Equity ACT—A Legacy for Users. Information regarding the Riverside County CMP is provided below.

Complete Streets Act

The Complete Streets Act¹ was signed into law in 2008. This law requires cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians, and transit riders, as well as motorists.

Regional and Local Setting

SCAG Regional Transportation Plan/Sustainable Communities Strategy (SCAG RTP/SCS)

The Southern California Association of Governments (SCAG) is the largest metropolitan planning organization in the nation and is responsible for developing long-range transportation plans and a sustainability strategy for the region. The most recent 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (Connect SoCal) charts a path toward a more mobile, sustainable, and prosperous region by making key connections between transportation networks, between planning strategies, and between people.²

Connect SoCal is an important planning document for the region, allowing public agencies who implement transportation projects to do so in a coordinated manner, while qualifying for federal and State funding. The plan includes robust financial analysis that considers operations and maintenance costs to ensure our existing transportation system's reliability, longevity, resilience, and cost effectiveness. In addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements. The plan also strives to achieve broader regional objectives, such as the preservation of natural lands, improvement of public health, increased roadway safety, support for the region's vital goods movement industries, and more efficient use of resources.

The plan explicitly lays out goals related to housing, transportation technologies, equity, and resilience in order to adequately reflect the increasing importance of these topics in the region and, where possible, the goals have been developed to link to potential performance measures and targets. The plan's guiding policies take these goals and focus them, creating a specific direction for plan investments.

1 Government Code Sections 65040.2 and 65302. Assembly Bill 1358.

2 Southern California Association of Governments (SCAG). *Connect SoCal – 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocialplan_0.pdf?1606001176. Accessed July 2022.

The following goals are included in the 2020-2045 RTP/SCS:

1. Encourage regional economic prosperity and global competitiveness.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.
3. Enhance the preservation, security, and resilience of the regional transportation system.
4. Increase person and goods movement and travel choices within the transportation system.
5. Reduce greenhouse gas emissions and improve air quality.
6. Support healthy and equitable communities.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.
10. Promote conservation of natural and agricultural lands and restoration of habitats.

Riverside County Congestion Management Program

The Congestion Management Program (CMP) is intended to link land use, transportation, and air quality with reasonable growth management methods, strategies, and programs that effectively utilize new transportation funds to alleviate traffic congestion and related impacts. The Riverside County Transportation Commission (RCTC) is the designated Congestion Management Agency (CMA) that prepares the Riverside County Congestion Management Program updates in consultation with local agencies, the County of Riverside, transit agencies, and sub-regional agencies like the Coachella Valley Association of Governments (CVAG).

The RCTC has designated a system of highways and roadways to include (at a minimum) all State Highway facilities within Riverside County and a system of principal arterials as the Congestion Management System (CMS). All State Highways within Riverside County have been designated as part of the CMP System of Highways and Roadways. The following facilities are designated as part of the Riverside CMP System of Highways and Roadways in the Coachella Valley:

- I-10 (San Bernardino County line to State line).

Coachella Valley Regional Arterial Program

CVAG administers the Coachella Valley Regional Arterial Program, which allocates Measure A and Transportation Uniform Mitigation Fee (TUMF) funds for necessary improvements to the regional transportation system.

Measure A, approved by Riverside County voters in 1988, approved a half-cent increase in sales tax over a 20-year period to be used for transportation purposes. In November 2002, Riverside County voters approved a 30-year extension of Measure “A” (2009-2039). Measure A funds contribute a portion of the cost of transportation system improvements projected to be needed over the next 25 years.

The TUMF program was developed to generate additional funds to fund improvements to the regional arterial roadway system. The TUMF is a development impact assessment that provides funding for transportation improvements required to support new development based on the number of vehicle trips new development will generate. Approximately 55 percent of the funding provided by CVAG consists of TUMF funds with the remainder consisting of Measure A funds. CVAG prepares the Transportation Project Priority Study (TPPS) every 5 five years to determine funding availability for improvements to regional arterials by prioritizing the eligible study segments based on an assessment of the need for improvement.

Available TUMF and Measure A revenues are applied to the TPPS projects in order of priority. Because a project’s priorities set out in the TPPS control the order of funding, it also generally controls the approximate timeframe for each project.

To conform to CVAG policies, all CVAG member agencies require the construction of adopted road construction standard improvements for missing regional roads segments located adjacent to land development projects.

City of Indio General Plan

A General Plan is a city policy document required by California state law (Government Code Section 65300- 65303.4) that provides a “long term, comprehensive, integrated, internally consistent and compatible statement” of goals and policies that reflect local conditions and the community vision. Within this general requirement, some aspects of the general plan are tightly prescribed, while others are left to the discretion of individual cities or counties. The City’s General Plan implements the community’s vision, establishing goals, policies, and implementation actions that will help achieve a long-term vision as a community that values unique culture, entertainment and arts, and local character.

Land Use and Urban Design

The Land Use and Urban Design Element provides the long-term vision, goals, and policies for land use, development, and urban design in Indio over the next 20 to 25 years. Land use is a required element, and topics covered include land use designations, enhancement of the Downtown and Midtown areas, preservation of existing neighborhood character, development of new growth areas, and mixed-use corridor revitalization. While not required by statute, urban design is one of the central components of the City’s General Plan since understanding characteristics of the built environment - the location and design of homes, stores, parks, offices, and the way that residents interact with these various places in the public realm - is vital to strengthening quality of life. Setting the appropriate design parameters for future change and redevelopment is critical to realizing the community’s vision. Building on citywide

goals and policies, the Land Use and Urban Design Element also provides goals and policies for each of the City’s unique neighborhoods, districts, and commercial corridors, delineating strategies for the desired uses, character, and form for each area. The following goals and policies are applicable to the proposed Project:

Goal LU-2: Active Places. Indio is a City with active and comfortable places that encourage social interaction and community gathering.

LU-2.1 Walkable neighborhoods. Require all new neighborhoods to be pedestrian friendly by including features, such as short blocks, wide sidewalks, shaded streets, buildings that define and are oriented to streets or public spaces, traffic-calming features, convenient pedestrian street crossings, and safe streets designed for pedestrians, cyclists, and vehicles.

LU-2.5 Existing gathering spaces. Improve existing gathering spaces throughout the City to provide attractive, comfortable, and inviting public and pedestrian spaces, encouraging walking and public gathering spaces.

Goal LU-3: Human-Scaled Public Realm. A City designed for people, fostering interaction, activity, and safety.

LU-3.1 Streetscape design. Create pedestrian-oriented streetscapes by establishing a unified approach to street tree planting, sidewalk dimensions and maintenance, pedestrian amenities, and high quality building frontages.

LU-3.2 Pedestrian focus on high volume streets. Design the streetscape of high volume corridors to balance regional traffic flow with safe and convenient pedestrian movement.

LU-3.3 Parking frontages. Require parking design standards that ensure parking areas do not dominate street frontages and are screened from public views whenever possible.

Goal LU-5: Connected Places. A network of transportation corridors throughout the city that provides a high level of connectivity for vehicles, bicyclists, and pedestrians.

LU-5.1 Complete street projects. Design, plan, maintain, and operate streets using complete street principals for both new infrastructure and for retrofit/maintenance projects. This includes reviewing the entire right of way and prioritizing modes as noted on Figure 4-1.

LU-5.2 Street connectivity. Encourage short block spacing for new development to enhance connectivity to neighborhoods. In key areas of the City, work with existing land owners to improve connectivity for bicycles and pedestrians.

LU-5.3 Complete street context. Ensure that complete street applications integrate the neighborhood and community identity into the street design.

LU-5.4 Subarea connectivity. Ensure a high-level of connectivity in all Neighborhoods, Centers and Districts throughout the City. The connectivity should be measured as block perimeter or length and in external connectivity on the perimeter of a new development project.

LU-5.5 Connections between development projects. Require the continuation of the street network or pedestrian connections between adjacent

development projects and discourage the use of cul-de-sacs except where necessary or due to existing development, topographic conditions or limited access to transportation systems.

LU-5.6 Improved connections. Improve pedestrian and bicycle mobility by identifying opportunistic connections within the City’s neighborhoods to increase access to local parks, schools, neighborhood centers, and neighborhood gathering spaces.

LU-5.8 Connective corridors. Ensure high-quality, people-oriented street design and urban design occurs where highlighted by the Connective Corridors in Figure 3-8.

Goal LU-6: Enhance Existing Neighborhoods. A City with well-maintained residential neighborhoods that support Downtown and Midtown.

LU-6.11 Circulation connectivity. Seek opportunities to enhance and maintain existing residential neighborhoods by improving pedestrian and bicycle facilities, installing traffic calming measures, and “punch through” cul-de-sacs.

Goal LU-7: New Neighborhoods. Neighborhoods that provide a variety of housing types, densities, designs and mix of uses and services that support healthy and active lifestyles.

LU-7.1 Complete neighborhoods. Through the development entitlement process, ensure that all new Neighborhoods (areas with a “Neighborhood” General Plan Designation) are complete and well-structured such that the physical layout and land use mix promote walking to services, biking and transit use, are family friendly, and address the needs of multiple ages and physical abilities. New neighborhoods should have the following characteristics:

- Contain short, walkable block lengths.
- Contain a high level of connectivity for pedestrians, bicycles and vehicles where practicable.
- Organize around a central focal point such as a park, school, civic building or neighborhood retail such that most homes are no more than one quarter-mile from this focal point.
- Have goods and services within a short walking distance.
- Contain a diversity of housing types, where possible.
- Have homes with entries and windows facing the street.
- Have a grid or modified grid street network (except where topography necessitates another street network layout).
- Provide a diversity of architectural styles.

Mobility

The purpose of the Mobility element is to create a transportation network for the City that balances model priorities to address the safe and efficient operation, maintenance, and management of the circulation network. The goals and policies in the element have been developed to ensure that all streets within the City are reviewed through a “complete streets” lens - meaning that all streets should provide

safe accommodation for all users of the transportation network. The following goals and policies are applicable to the proposed Project:

- Goal ME-1: Complete Streets.** A City that embraces complete streets by providing streets that are safe and accessible by users of all ages and all abilities.
- ME-1.2 Users.** Design and build streets that accommodate users of all ages and all abilities. This includes utilizing the layered networks approach to identify key modes that shall be prioritized and enhanced along streets.
 - ME-1.3 Projects and phases.** Design, plan, maintain, and operate streets using complete streets principles for all types of transportation projects including design, planning, construction, maintenance, and operations of new and existing streets and facilities. This includes repurposing unneeded roadway pavement to implement bicycle and pedestrian improvements (e.g. road diets) when Average Daily Traffic (ADT) volumes are less than 15,000 vehicles.
 - ME-1.4 Street connectivity.** Encourage short block spacing for new development consistent with the Land Use and Community Design Element to enhance connectivity to neighborhoods. In key areas of the City (e.g. the pedestrian-priority areas, Downtown, Midtown, and the Festival District), work with existing land owners to improve connectivity for bicycles and pedestrians.
 - ME-1.8 Performance standards.** Monitor and evaluate multi-modal performance standards, such as Multi Modal Levels of Service (MMLoS), as a means to measure the service levels of prioritized modes based on the layered networks approach. When and if these methodologies are applied in the City, LOS D or better for prioritized modes and LOS E or better for non-prioritized travel modes will be maintained.
 - ME-1.10 Residential streets.** Design residential streets to minimize traffic volumes and/or speed, as appropriate, without compromising connectivity for emergency first responders, bicycles, and pedestrians. This could be accomplished through management and implementation of complete streets strategies, short block lengths, narrow streets, and/or traffic calming measures.
 - ME-1.11 Traffic calming tools.** Use traffic-calming tools to assist in implementing complete streets principles. Traffic calming tools include roundabouts, curb extensions, high-visibility crosswalks, and separated bicycle infrastructure.
 - ME-1.12 Compliance.** Require new developments in Indio to comply with the City’s Complete Streets Implementation Plan.
- Goal ME-2: Active Transportation.** A City that provides a first-rate network of bicycle and pedestrian infrastructure.
- ME-2.2 Facility enhancement.** Enhance the bicycle and pedestrian facilities as identified in Figure 4-1 as part of development, private grants, signing of shared routes, maintenance activities, etc. The City will also complete and continually update a Complete Streets Master Plan which will also assist in enhancing bicycle and pedestrian infrastructure.
 - ME-2.4 Intersection and signal enhancements.** Enhance pedestrian and bicycle crossing efficiency and safety, including timing of signals, crosswalks, and intersection design features.

- Goal ME-3:** **Transit.** The City will work with SunLine Transit and other regional partners to enhance bus transit, and to implement a future transit station in conjunction with the planned commuter rail extension to and from Riverside.
- ME-3.3** **Safe linkages.** Encourage convenient and safe pedestrian linkages to and from transit service to provide better first-mile/last-mile connectivity. This includes connectivity to/from existing and new development and along streets providing access to the transit stop.
- Goal ME-4:** **Vehicle Circulation.** The City will provide appropriate vehicle circulation, especially along streets identified as priority-auto streets.
- ME-4.1** **Street sections.** Minimize street widths to minimize capital costs, maintenance costs, decrease vehicle speeds, and improve safety for all users of the street while ensuring consistency with the street guidance provided in Table 4-2 [of the General Plan].
- Goal ME-6:** **TNCs and AVs.** Proactively plan for and support changes in mobility technologies.
- ME-6.2** **Parking.** New parking facilities will be planned to ensure a relevant use in the future if parking requirements are dramatically decreased due to new technologies.
- ME-6.3** **Curb space management.** Manage curb spaces in activity areas to balance the demands of AVs and TNCs, bicycles, pedestrians, delivery loading/unloading, street furniture, etc. to ensure a balanced provision to all users.
- Goal ME-8:** **Parking.** Parking will be right sized within the City.
- ME-8.1** **Off-street parking.** Require new developments to provide sufficient off-street parking (or payment of in-lieu fees) to reduce on-street parking congestion and increase both auto and pedestrian safety. New development shall provide electric vehicle charging stations and preferential parking for carpools, vanpools, and alternative fuel vehicles.
- ME-8.4** **Bicycle parking.** Safe and secure bicycle parking facilities shall be provided with all new development.

City of Indio Municipal Code

Chapter 70, Traffic Regulations in the Indio Municipal Code is the City's Traffic Ordinance. This ordinance provides general provisions, administration and enforcement, traffic control devices and markings, speed, processions, vehicle size and weight, traffic on highways, transportation of hazardous materials, interstate trucks, off-road use of vehicles, and pedestrians (American Legal Publishing Corporation 2016).

The City of Indio Public Works Department, Engineering Division, has Engineering Standards relating to roadway design. These standards were adopted in May 2016. The design standards include specifications for minimum curve radii, sight lines, design speeds, maximum grades, subgrade base, pavement thickness, and other roadway features. Additionally, the design standards outline specific procedures for road trenching. Compliance with the City's roadway design standards is enforced by the City traffic engineer and is intended to preclude traffic hazards.

ENVIRONMENTAL SETTING

Existing Conditions

Regional Access

The Project Site is located within the Coachella Valley, which is separated from the Greater Los Angeles Area to the northwest by the San Geronio Pass, through which Interstate 10 (I-10) and the Union Pacific Railroad are the major transportation corridors. The Project Site is situated between the cities of La Quinta on the west and Coachella on the east.

Regional access in the Coachella Valley is provided by the Interstate 10 (I-10) Freeway, which provides access through the valley from the northwest to the southeast. I-10 extends from western Los Angeles County through San Bernardino County and Riverside County to the east across Arizona.

Regional access to the Project Site is currently available from I-10 via the interchanges at Jefferson Street and Monroe Street. Motorists can access I-10 through the Jefferson Street Interchange, which includes six-lane overcrossing designed for traffic entering and exiting the I-10 freeway from both directions in a mixed diamond and cloverleaf interchange. Motorists can access I-10 in both directions through the Monroe Street Interchange, which includes an eight-lane overcrossing at I-10 and ramps configured in a tight diamond interchange.

Highways and Local Streets

Highways

Interstate 10 (I-10) is the southernmost cross-country federal highway that traverses the states of California, Arizona, New Mexico, Texas, Louisiana, Mississippi, Alabama, and Florida. I-10 runs through the northern portion of the City, south of the Project site. In the Project study area, I-10 has three mixed-flow lanes in each direction.

Local Streets

Local access to the site is provided by Avenue 38 to the north, Madison Street to the east, and Avenue 40 to the south from Jefferson Street and Monroe Street.

Avenue 38 is an east-west collector that extends from Del Webb Boulevard and Adams Street to Madison Street and forms the northern boundary of the Project site. Avenue 38 is generally one lane in each direction and has two lanes in the eastbound direction east of Talavera Boulevard. There are Class II bicycle lanes on Avenue 38 between Dune Palms Road and Madison Street.

Madison Street is a north-south collector that connects Avenue 38 and Avenue 40 and forms the eastern boundary of the Project site. Madison Street is a three-lane facility with two lanes in northbound direction and one lane in southbound direction. There are no bicycle facilities on Madison Street.

Avenue 40 is an east-west boulevard that extends from Fifties Way to Monroe Street and forms the southern boundary of the Project site. Avenue 40 is generally one lane in each direction west of Jefferson Street and two lanes in each direction east of Jefferson Street. There are Class II bicycle lanes on Avenue 40 west of Madison Street.

Jefferson Street is a north-south roadway located west of the Project site that provides direct access to I-10. Jefferson Street is classified as a collector north of Avenue 40 and as an arterial south of Avenue 40. Jefferson Street is generally one lane in each direction north of Sun City Boulevard, and two to three lanes in each direction south of Sun City Boulevard. The I-10/Jefferson Street interchange was recently reconstructed as a partial cloverleaf with three through lanes in each direction on the overcrossing. There are Class II bicycle lanes on the recently completed I-10/Jefferson Street interchange.

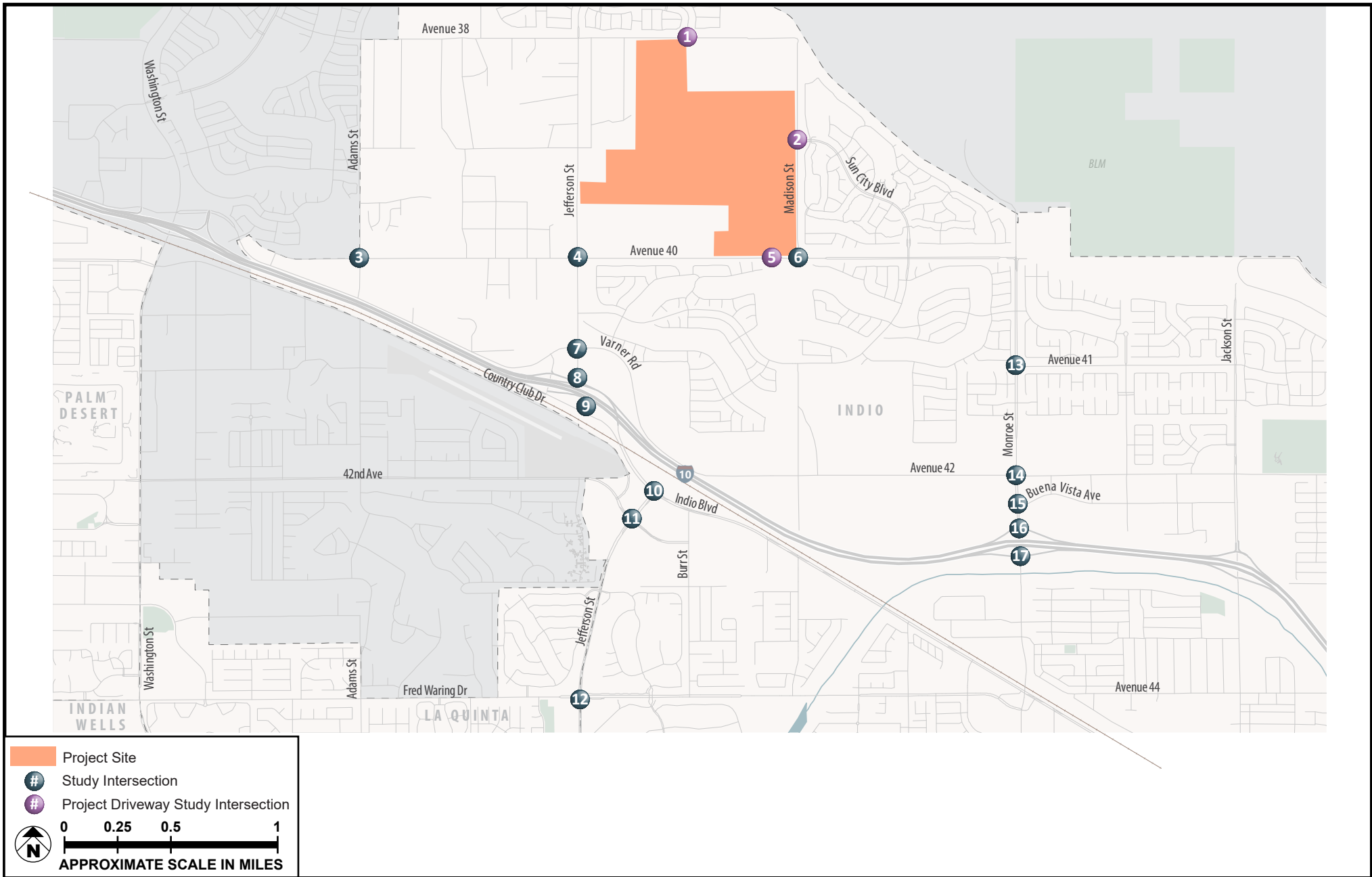
Monroe Street is north-south roadway located east of the Project site that provides direct access to I-10. Monroe Street is classified as a boulevard north of Avenue 42 and south of I-10, and as an arterial between Avenue 42 and I-10. Monroe Street is two lanes in each direction north of Villa Palazzo/Colby Way and south of Industrial Place/Avenue 44 and is generally one lane in each direction between Villa Palazzo/Colby Way and Industrial Place/Avenue 44. There are Class II bicycle lanes on Monroe Street north of Villa Palazzo/Colby Way.

Traffic Study Intersections

The Project Site is bounded by four of the roadways described above: Avenue 38, Madison Street, Avenue 40, and Jefferson Street. Based on the location of the Project Site, preliminary trip generation, trip distribution, trip assignment estimates developed for the Project and knowledge of the study area, the City of Indio defined a study area to identify the traffic impacts of the proposed Project. This study area is consistent with the Riverside County (County) Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled (2020). The study area includes the area immediately adjacent to the Project site, along with roadways that provide primary access to the regional transportation network. The following seventeen intersections within the Study Area were identified for evaluation (see **Figure 5.14-1: Study Area Intersections**):

Avenue 38 and Talavera Boulevard/Project Driveway

1. Madison Street and Sun City Boulevard/Project Driveway
2. Adams Street and Avenue 40
3. Jefferson Street and Avenue 40
4. Avenue 40 and Camino San Gregorio/Project Driveway
5. Madison Street and Avenue 40
6. Jefferson Street and Varner Road
7. Jefferson Street and I-10 Westbound Ramps



SOURCE: Fehr & Peers – 2022

FIGURE 5.14-1

8. Jefferson Street and I-10 Eastbound Ramps
9. Jefferson Street and Indio Boulevard
10. Jefferson Street and Avenue 42/Country Club Drive
11. Jefferson Street and Fred Waring Drive
12. Monroe Street and Avenue 41
13. Monroe Street and Avenue 42
14. Monroe Street and Buena Vista Avenue
15. Monroe Street and I-10 Westbound Ramps
16. Monroe Street and I-10 Eastbound Ramps

Additionally, the Transportation Study evaluates the four roadway segments surrounding the Project, as shown in **Figure 5.14-1**:

1. Avenue 38 from Jefferson Street to Madison Street
2. Madison Street from Avenue 38 to Avenue 40
3. Avenue 40 from Jefferson Street to Madison Street
4. Jefferson Street from Avenue 39 to Avenue 40

Existing Transportation System

Public Transportation

Transit in the Project area is provided Sun Line Transit Agency (SLTA), which is the regional transit provider for Riverside County. Currently, Sun Line Transit operates a variety of bus routes in Indio. A map of the route that operates in this area may be seen in **Figure 5.14-2: SunLine Transit Routes**.

- Routes 800, 801, 802, and 803: These routes provide school shuttle service to Shadow Hills High School. Each bus operates once on weekday mornings before school starts and once on weekday evenings after school. Bus stops are located directly adjacent to the Project site on the corner of Avenue 38 and Talavera Boulevard, and Avenue 40 and Madison Street.
- Route 8 (Desert Retreat Coachella Thermal/Mecca): This route operates weekdays between 5:35 AM and 11:00 PM and provides service between the Walmart Supercenter and the Mecca Health Clinic. The route operates with headways of approximately one hour. The closest bus stop to the Project site served by Route 8 is located near the Walmart Supercenter on the corner of Showcase Parkway and Monroe Street, approximately 2.6 miles away.

Bikeways

Caltrans standards are used to design bikeways by most jurisdictions throughout California and the City of Indio adheres to Caltrans bikeway standards. There are four classifications for bicycle facilities: Class I, Class II, Class III, and Class IV bikeways. Existing and currently proposed bicycle facilities can be shown in **Figure 5.14-3: Bicycle Facilities**. A description of existing and proposed bicycle facilities located in the City is discussed below.

Class I Bikeways

Class I bicycle facilities include shared-use paths and are off-street bicycle facilities, such as paved trails, that may be used by all types of non-motorized users.

Existing Class I Bikeways are located along:

- The City's General Plan proposes a Class I bicycle path on Jefferson Street between Avenue 38 and Varner Road.

Class II Bikeways

Class II bicycle facilities are designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. These lanes may include special lane markings and signage and can also be enhanced by adding buffered striping.

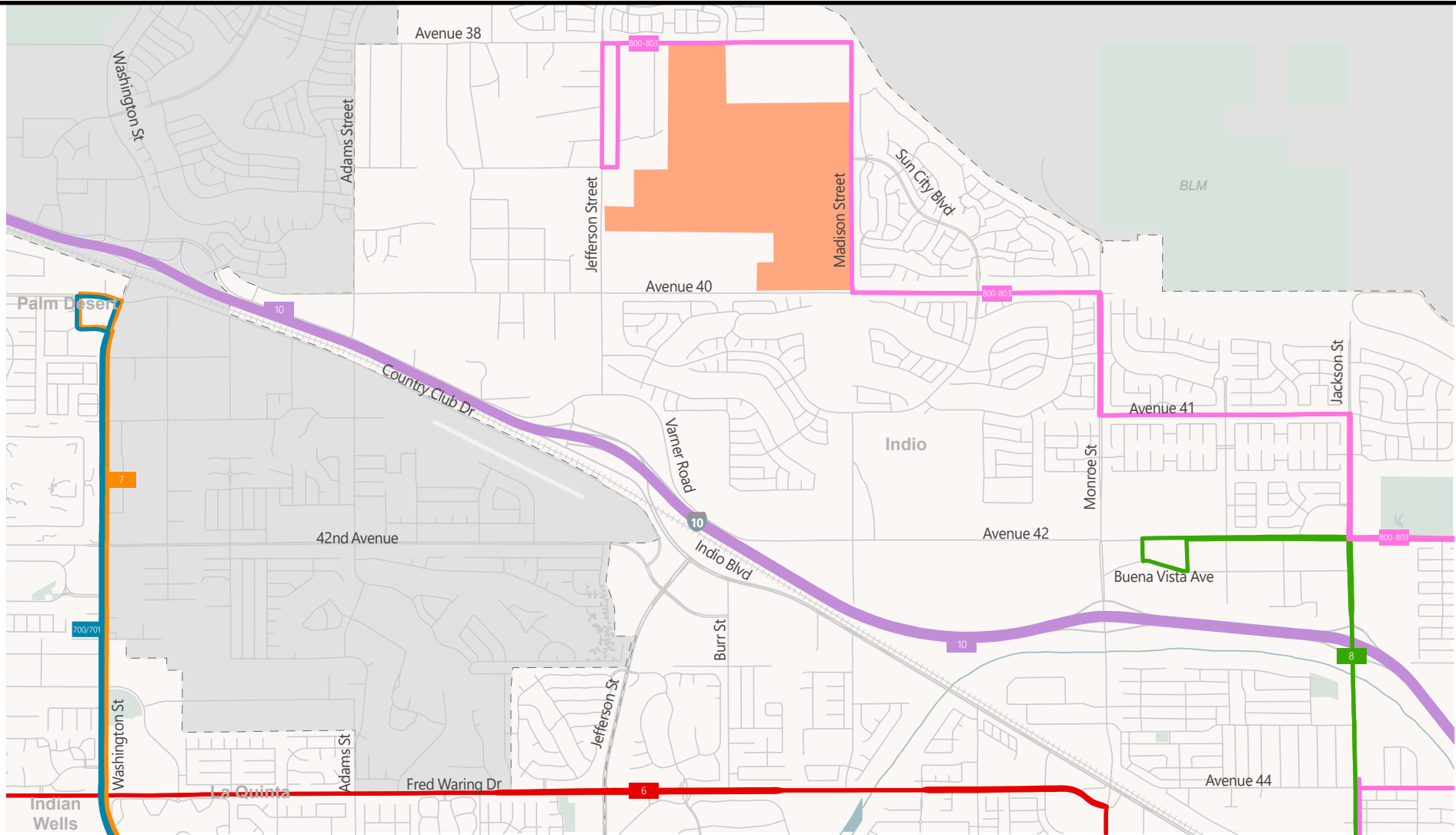
Existing Class II Bikeways are located along:

- Avenue 38 between Dune Palms Road and Madison Street.
- Avenue 40 between Jefferson Street and Monroe Street.
- The City's General Plan identifies Class II bicycle lanes on Avenue 40 between Fifties Way and Monroe Street.

Class III Bikeways

Class III Bikeways are designated streets for shared use by motor vehicles and bicyclists. While bicyclists have no exclusive use or priority, signage both by the side of the street and stenciled on the roadway surface alerts motorists to bicyclists sharing the roadway space and denotes that the street is an official bike route. These routes are typically designated along gaps between bicycle trails or bicycle lanes.

There is no existing or proposed Class III bikeways in the Project area.



Sunline Transit Agency

School Tripper

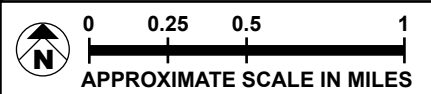
- # Routes 700, 701
- # Routes 800, 801, 802, 803

SunBus

- # Route 6
- # Route 7
- # Route 8

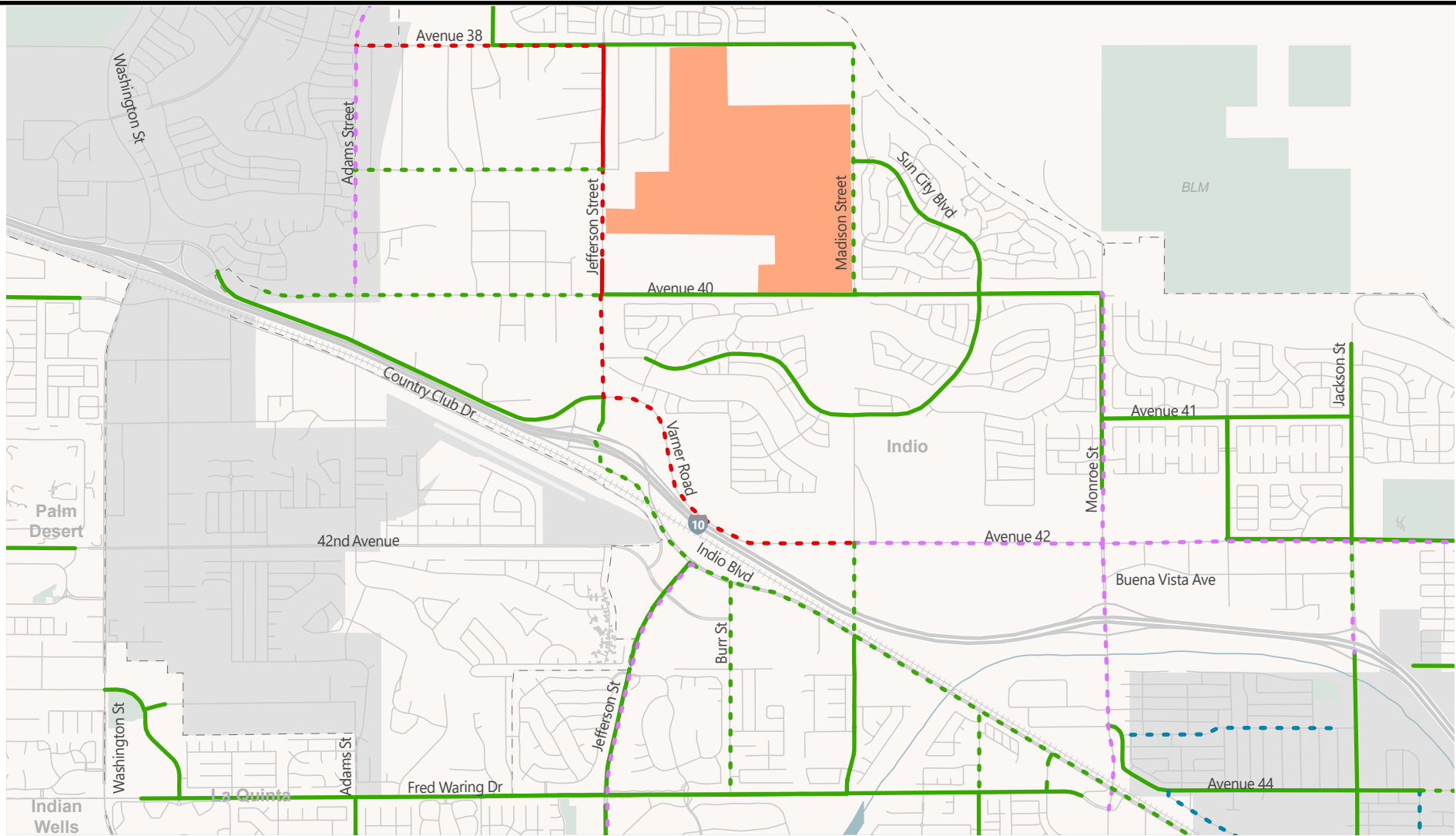
Commuter Link

- # Route 10
- Project Site

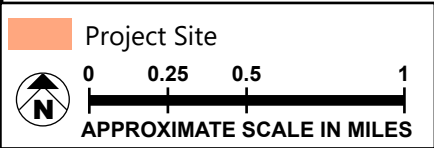


SOURCE: Fehr & Peers – 2022

FIGURE 5.14-2



Existing and Proposed Bike Facilities



- | Existing Bike Facilities | | Proposed Bike Facilities | |
|--------------------------|---------|--------------------------|---------|
| | Class 1 | | Class 1 |
| | Class 2 | | Class 2 |
| | | | Class 3 |
| | | | Class 4 |

SOURCE: Fehr & Peers – 2022

FIGURE 5.14-3

Class IV Bikeways

Class IV bicycle facilities, sometimes called cycle tracks or separated bikeways, are a separated bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bicycle lane. Cycle tracks can be adjacent to vehicle traffic but are exclusive to bicycles and must be physically separated from motor vehicle travel lanes.

There is no existing or proposed Class IV bikeways in the Project Study Area.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and multi-use trails. Sidewalks are provided along most roadways in Indio where land uses have been developed adjacent to the roadway. Within the study area, limited pedestrian facilities are provided. While many signalized intersections in the area have marked crosswalks, pedestrian signals, and push buttons, there are very few sidewalks adjacent to the Project site. Some of the sidewalks in the City provide access to pedestrians, as well as bicycles and golf carts.

Existing Traffic Conditions

Weekday morning (AM) and evening (PM) peak period intersection turning movement counts were conducted at the study intersections in February 2022 on a typical week. For the study intersections, the single hour with the highest traffic volumes during each count period was identified. The AM peak hour in the Project study area is generally 7:30 to 8:30 AM and the PM peak hour is generally 4:00 to 5:00 PM. The AM peak hour in the Project study area occurred on Wednesday between 7:45 to 8:45 AM and the PM peak hour occurred on Wednesday between 3:15 to 4:15 PM, coinciding with the pick-up/drop-off period at the nearby schools.

To account for abnormal traffic patterns caused by the Coronavirus Disease of 2019 (COVID-19) pandemic, traffic volumes on Jefferson Street and Monroe Street north of I-10 were compared to pre-COVID-19 conditions using available data. A comparison of daily and peak period traffic count estimates on roadways in the study area for the month of February 2020, representing pre-COVID-19 conditions, as well as February 2022, was completed and such determined the weekday daily and peak period traffic count estimates were higher in 2022 than in 2020 and, for this reason, no adjustments were necessary. The peak hour intersection turning movement counts are presented on **Figure 5.14-4: Existing (2022) Peak Hour Intersection Turning Movement Volumes**, along with the existing lane configuration and traffic control.

Intersection Operations

Existing intersection operations were evaluated using the HCM methodology with results summarized in **Table 5.14-1: Existing (2022) Intersection Levels of Service**. Observed peak hour factors were used at all intersections and pedestrian and bicycle activity were factored into the analysis. Under Existing conditions, all study intersections operate at acceptable service levels in accordance with benchmarks

set by the City of Indio during both the weekday morning and evening peak hours, which was confirmed during field observations.

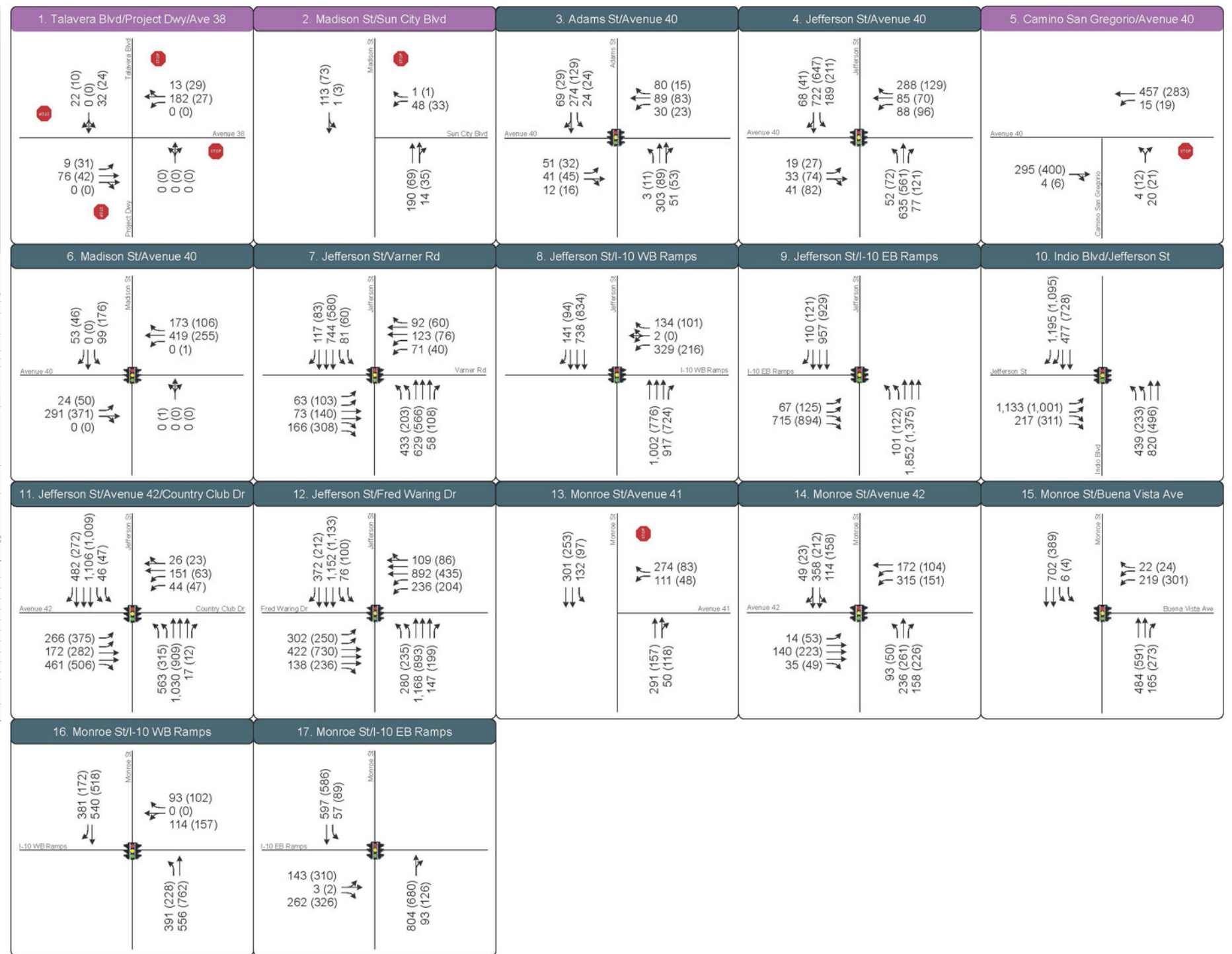
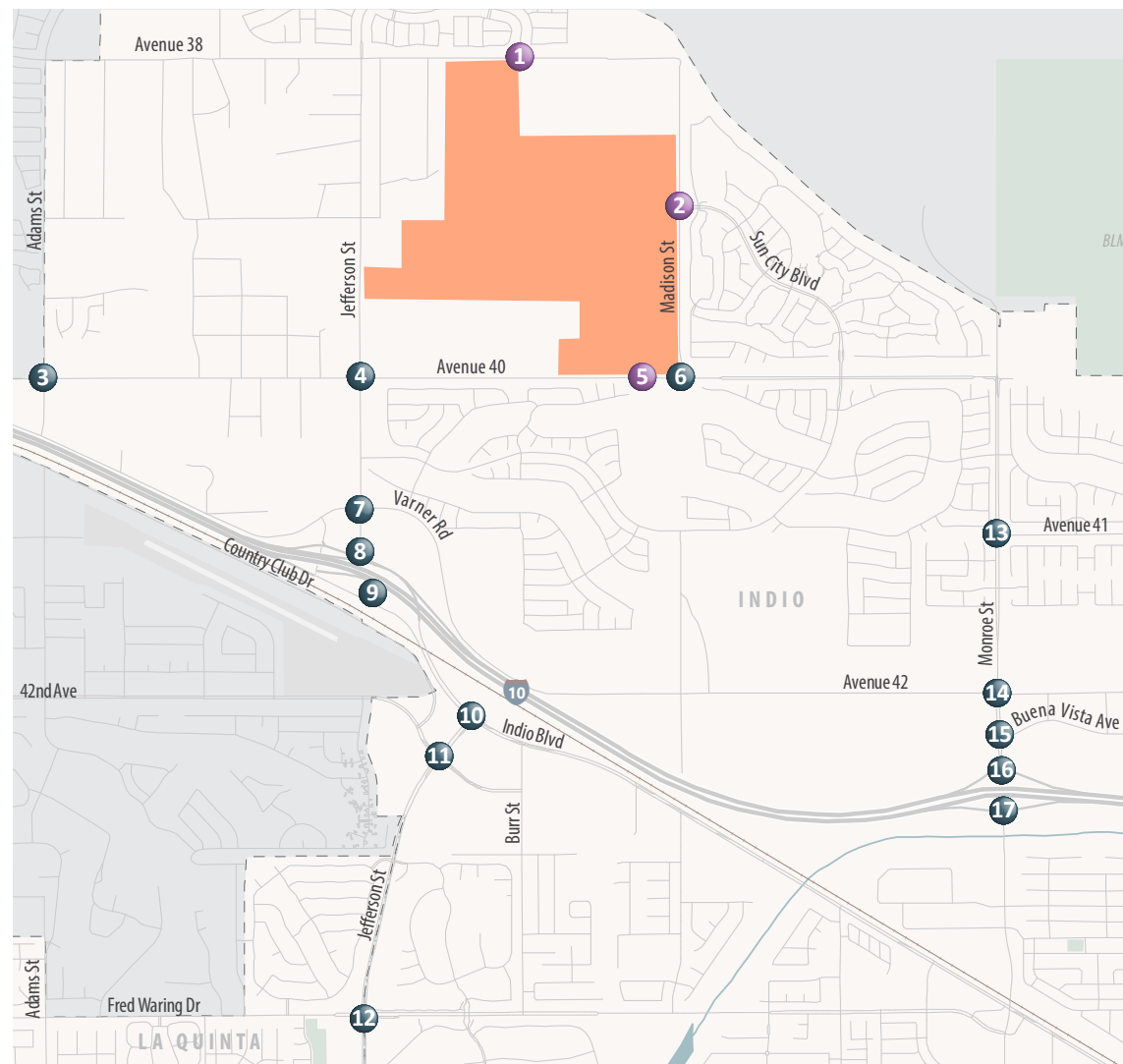
**TABLE 5.14-1
EXISTING (2022) INTERSECTION LEVELS OF SERVICE**

	Intersection	Control ^a	Peak Hour	Existing Conditions	
				LOS ^b	Delay ^b
1	Avenue 38 and Talavera Boulevard/ Project Driveway	AWSC	AM PM	B A	10 8
2	Madison Street and Sun City Boulevard/ Project Driveway	SSSC	AM PM	A (B) A (B)	2 (12) 2 (10)
3	Adams Street and Avenue 40	Signal	AM PM	A A	8 7
4	Jefferson Street and Avenue 40	Signal	AM PM	D C	54 29
5	Avenue 40 and Camino San Gregorio/ Project Driveway	SSSC	AM PM	A (A) A (A)	1 (5) 1 (4)
6	Madison Street and Avenue 40	Signal	AM PM	A B	9 12
7	Jefferson Street and Varner Road	Signal	AM PM	D D	41 36
8	Jefferson Street and I-10 Westbound Ramps	Signal	AM PM	A A	7 3
9	Jefferson Street and I-10 Eastbound Ramps	Signal	AM PM	B C	15 28
10	Jefferson Street and Indio Boulevard	Signal	AM PM	C C	35 34
11	Jefferson Street and Avenue 42/ Country Club Drive	Signal	AM PM	C C	33 32
12	Jefferson Street and Fred Waring Drive	Signal	AM PM	D C	38 34
13	Monroe Street and Avenue 41	SSSC	AM PM	A (C) A (C)	8 (20) 3 (16)
14	Monroe Street and Avenue 42	Signal	AM PM	C C	28 28
15	Monroe Street and Buena Vista Avenue	Signal	AM PM	A A	8 9
16	Monroe Street and I-10 Westbound Ramps	Signal	AM PM	C A	24 8
17	Monroe Street and I-10 Eastbound Ramps	Signal	AM PM	B C	13 22

Source: Fehr & Peers, Table 4, 2022.

^a SSSC = side-street stop-controlled intersection; AWSC = all-way stop-control.

^b For SSSC intersections, LOS/delay is presented as: Intersection Average (Worst Movement). Deficient intersection operations are noted in bold text.



XX (YY) AM (PM) Peak Hour Traffic Volumes

Signalized Intersection

Stop Sign

Project Site

Study Intersection

Project Driveway Study Intersection



SOURCE: Source: Fehr & Peers – 2022

FIGURE 5.14-4

Roadway Segment Operations

Roadway segment operations under Existing conditions were evaluated using the ADT based thresholds for Riverside County with results summarized in **Table 5.14-2: Existing (2022) Roadway Segments**. As shown in **Table 5.14-2**, all roadway segments studied currently operate at LOS C or better.

	Roadway Segment	Roadway Classification	Average Daily Traffic (ADT)	LOS
1	Avenue 38 from Jefferson Street to Madison Street	2-Lane Collector	1,600	A-C
2	Madison Street from Avenue 38 to Avenue 40	2-Lane Collector	2,700	A-C
3	Avenue 40 from Jefferson Street to Madison Street	2-Lane Collector	5,400	A-C
4	Jefferson Street from Avenue 39 to Avenue 40	2-Lane Collector	10,200	A-C

Source: Fehr & Peers, Table 6, 2022.

Note: Deficient roadway segment operations are noted in bold text.

Peak Hour Signal Warrant

Peak hour traffic signal warrants for existing conditions were reviewed at the unsignalized study intersections in **Table 5.14-3: Existing (2022) Peak Hour Signal Warrants**. Under Existing conditions, the peak hour signal warrant is satisfied at the intersection of Monroe Street and Avenue 41 (Intersection 13), indicating that installation of a traffic signal is warranted by current traffic conditions at this intersection. The City of Indio has plans to construct a traffic signal at this intersection.

	Intersection	Control	Peak Hour	Signal Warrant Met?
1	Avenue 38 and Talavera Boulevard/ Project Driveway	AWSC	AM PM	No No
2	Madison Street and Sun City Boulevard/ Project Driveway	SSSC	AM PM	No No
5	Avenue 40 and Camino San Gregorio/ Project Driveway	SSSC	AM PM	No No
13	Monroe Street and Avenue 41	SSSC	AM PM	Yes No

Source: Fehr & Peers, Table 5, 2022.

Note: SSSC = side-street stop-controlled intersection; AWSC = all-way stop-controlled intersection.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have a significant impact to traffic and transportation if it would:

- Threshold 5.14-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- Threshold 5.14-2: Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).
- Threshold 5.14-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Threshold 5.14-4: Result in inadequate emergency access?

According to CEQA Section 15064.3, VMT is the most appropriate measure of transportation impacts. For land use projects specifically, VMT exceeding an applicable threshold of significance may indicate a significant impact. The determination of the Project's significance on transportation considers the following thresholds described below.

Active Transportation Plan (Coachella Valley Association of Governments (CVAG))

The CVAG Active Transportation Plan (2017) guides the future development of bicycle and pedestrian facilities, paseos, and trails within the Coachella Valley and City of Indio. This Plan focuses on the region's bicycle and pedestrian network, planning and policies related to bicycling and walking, nonmotorized connections to transit, safe routes to schools, and complete streets.

An active transportation impact is considered significant if the project disrupts or interferes with existing and planned pedestrian/bicycle facilities or conflicts with adopted pedestrian/bicycle system plans, guidelines, policies, or standards.

Transportation Analysis Guidelines (Riverside County)

The County adopted Transportation Analysis Guidelines for Level of Service and Vehicles Miles Traveled in December that follows OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA (2018). The updates outline the VMT analysis methodology and screening criteria by which land-development projects can apply when evaluating transportation impacts. An impact is considered significant if the project generates VMT above the existing county-wide average VMT per capita.

General Plan

The City of Indio General Plan (2019) is a comprehensive plan for the growth and development of the City. The General Plan includes policies related to land use and urban design, mobility, economic development, health and equity, parks, recreation, and open space, conversation, infrastructure and

public facilities, safety, and noise. An impact is considered significant if the project conflicts with an adopted policy within the Mobility Element of the General Plan.

Methodology

The methodology and base assumptions used were developed by the City of Indio in accordance with the requirements documented in the Riverside County (County) Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled (2020). A California Environmental Quality Act (CEQA) Transportation Impact Study and a Local Transportation Study were prepared for the proposed Project. The following provides an overview of the methodology utilized to conduct the impact analysis presented in this section.

CEQA Transportation Impact Study

In response to California Senate Bill 743 (SB 743), the Office of Planning and Research (OPR) has updated California Environmental Quality Act Statutes and Guidelines (Association of Environmental Professionals, 2019) to include new transportation-related evaluation metrics. For the purposes of CEQA, level of service (LOS), a qualitative description of traffic on a roadway facility or intersection can no longer be used to determine a project's environmental impact. The final proposed Guidelines include a new Section 15064.3 on Vehicle Miles of Travel (VMT) analysis and thresholds for land use developments. OPR also released a Technical Advisory on Evaluating Transportation Impacts in CEQA (2018) which was applied to this impact analysis.

VMT Impact Criteria

OPR finalized the revisions to the CEQA Guidelines in accordance with SB 743, which replaces automobile delay and LOS with VMT as the new metric of analysis. The Project VMT impact analysis includes: (1) Determining the appropriate metric and corresponding threshold of significance, (2) Calculating the Project VMT, (3) Determining the impact significance, and, if applicable, (4) Recommend appropriate mitigation measures. Per the guidelines, projects not screened out are required to complete a VMT analysis using the Riverside County Transportation Analysis Model (RIVCOM) to determine if there would be a significant VMT impact. RIVCOM was released in summer of 2021 and is considered the best tool available for VMT estimation in Riverside County and Indio. RIVCOM has a 2018 base year and 2045 future year, with land uses and roadway networks consistent with the 2020 Southern California Association of Governments Regional Transportation Plan and Sustainable Communities Strategy (2020 SCAG RTP/SCS). For residential projects, the project would create a significant impact if the Project generated home-based production VMT per capita exceeds the existing county-wide average homebased production VMT per capita. The project generated VMT method relies on tracking trips to/from an individual project. In simple terms, it looks at the total number and distance each trip travels divided by the population that generated those trips (i.e., residents, employees, students, visitors, etc. as appropriate).

Consistent with guidance from the Transportation Analysis Guidelines for Level of Service and Vehicles Miles Traveled, VMT analysis was completed for baseline conditions for the Project. VMT analysis results under Cumulative (2045) conditions is also provided for informational purposes.

Local Transportation Study

The Local Transportation Study is typically prepared to provide information to assist the City with understanding what improvements should be considered for the ultimate development of a project, and to evaluate the project’s consistency with the City’s General Plan level of service (LOS) policy.

LOS is a qualitative description of traffic flow from a vehicle driver’s perspective based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined ranging from LOS A (free-flow conditions) to LOS F (over capacity conditions). The City generally strives to maintain LOS D or better as a guideline for intersection and roadway operations, as outlined in the City of Indio General Plan (General Plan) approved in 2019.

Table 5.14-4: Intersection Level of Service Criteria summarizes the relationship between average delay per vehicle and LOS for signalized and unsignalized intersections.

TABLE 5.14-4 INTERSECTION LEVEL OF SERVICE CRITERIA			
Level of Service	Description	Signalized	Unsignalized
		Delay (seconds/vehicle)	
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Source: Highway Capacity Manual, 6th Edition. (Transportation Research Board, 2016).

Operations of roadway segments were evaluated using the Average Daily Traffic (ADT) based thresholds from the County Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled. **Table 5.14-5: Riverside County Roadway Level of Service Criteria** summarizes the relationship between ADT by roadway classification and LOS for roadway segments.

**TABLE 5.14-5
RIVERSIDE COUNTY ROADWAY LEVEL OF SERVICE CRITERIA**

Level of Service	Two-Way Average Daily Traffic (ADT) Volume		
	2-Lane Collector	4-Lane Secondary	4-Lane Major
A-C	≤ 10,400	≤ 20,700	≤ 27,300
D	> 10,400 and ≤ 11,700	> 20,700 and ≤ 23,300	> 27,300 and ≤ 30,700
E	> 11,700 and ≤ 13,000	> 23,300 and ≤ 25,900	> 30,700 and ≤ 34,100
F	> 13,000	> 25,900	> 34,100

Source: *Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled (Riverside County, 2020)*.

Analysis Years and Scenarios

Study locations listed for the local transportation study were evaluated for the following scenarios:

- Existing (2020) Conditions: 2022 traffic turning movement counts collected at study intersections.
- Near-Term (2030) without Project Conditions: Projected traffic volumes and near-term roadway improvements expected to occur around time the proposed Project would be operational, without development of the Project.
- Near-Term (2030) with Project Conditions: Projected traffic volumes and near-term roadway improvements expected to occur around time the proposed Project would be operational, with development of the Project.
- Cumulative (2045) without Project Conditions: Projected traffic volumes and future roadway improvements based on the Riverside County Transportation Analysis Model (RIVCOM) under City of Indio General Plan build-out conditions, without development of the Project.
- Cumulative (2045) with Project Conditions: Projected traffic volumes and future roadway improvements based on the RIVCOM under City of Indio General Plan build-out conditions, with development of the Project.

For each development scenario, peak season morning and evening peak hour conditions were evaluated to establish whether or not mitigation would be required to achieve the applicable intersection performance standards.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project will add to the surrounding roadway system. The Trip Generation Manual, 11th Edition (Institute of Transportation Engineers [ITE], 2021), was used to estimate the number of daily, morning (AM) peak hour, and evening (PM) peak hour trips associated with the Project. The Project would develop up to 1,500 single-family active adult dwelling homes (i.e., age-restricted) within the 377-acre specific plan area. Primary residents within the specific plan area are required to be 55 years or older and no children are allowed to be permanent residents. As such, ITE Land Use Code 251 - Senior Adult Housing - was used to estimate the Project's trip generation.

The Project is expected to generate approximately 6,470 daily trips, with 304 trips occurring during the AM peak hour and 367 trips occurring during the PM peak hour, as presented in **Table 5.14-6: Project Trip Generation Estimates**.

ITE Land Use	Quantity	Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
(251) - Senior Adult Housing - Single-Family ^a	1,500	Dwelling Units	6,740	100	204	304	224	143	367

Source: *Trip Generation Manual, 11th Edition (ITE, 2021); Fehr & Peers, Table 7, 2022.*

^a Based on trip generation rates for ITE land use 251.

Daily = 4.31 * X; X = Dwelling Units

AM: =e^(0.76*(Ln(X)) + 0.16); X = Dwelling Units; 33% Inbound, 67% Outbound

PM: =e^(0.78*(Ln(X)) + 0.2); X = Dwelling Units; 61% Inbound, 39% Outbound

Trip Distribution

Project trip distribution refers to the directions of approach and departure that vehicles would take to access and leave the Project. The Project trip distribution is shown in **Figure 5.14-5: Project Trip Distribution**.

Trip Assignment

Project trip assignment refers to the specific route and roadway segments vehicles would take to access and leave the Project. Using the trip distribution percentages on **Figure 5.14-5**, Project trips were then assigned to the roadway network, as presented in **Figure 5.14-6: Project Trip Assignment**.

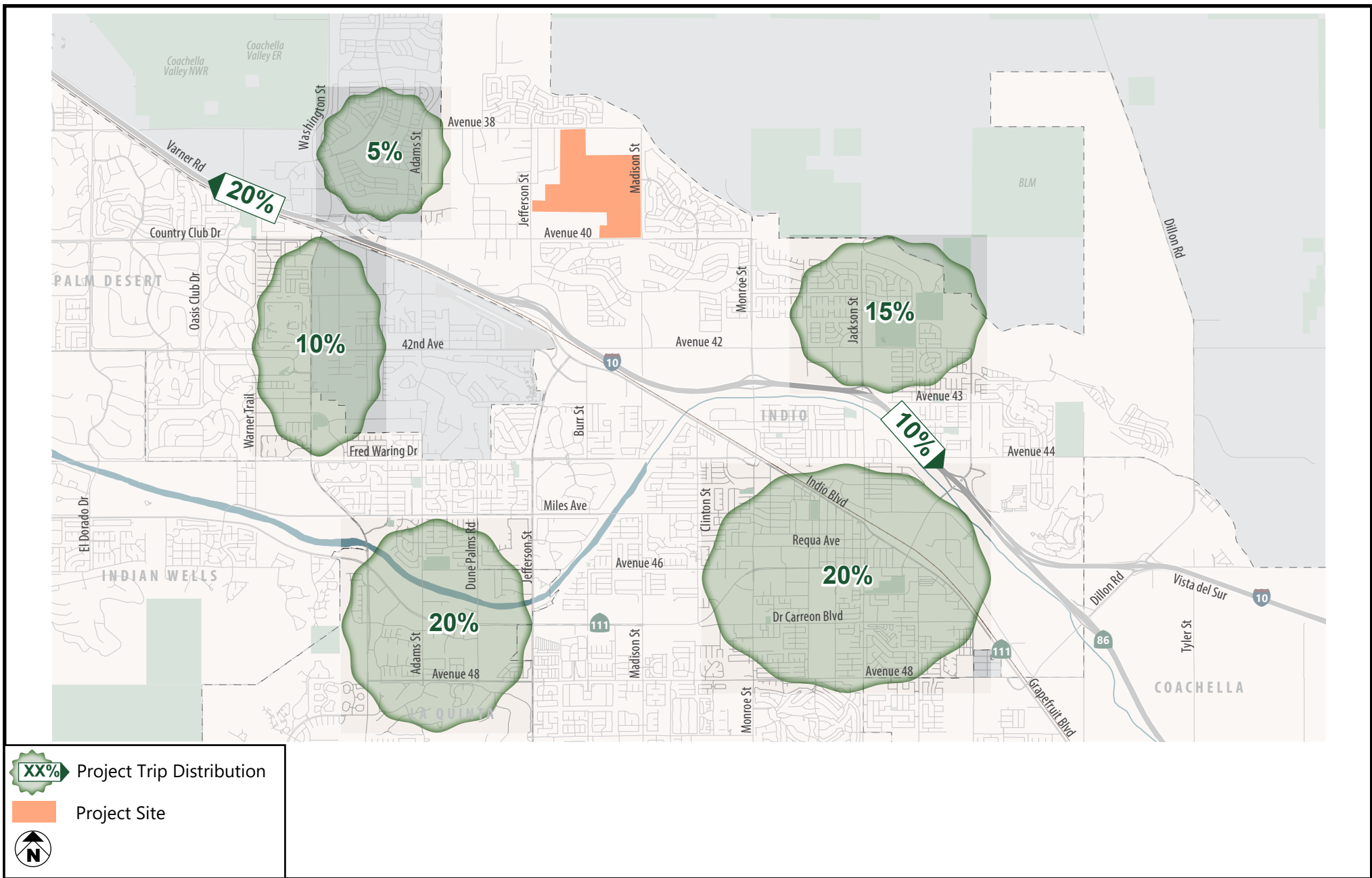
Traffic Volume Development

The latest version of RIVCOM was used to develop traffic volume forecasts. Traffic volume forecasts were developed using the “difference methodology.” The difference methodology uses the Base Year (2018) and Future Year (2045) model outputs to calculate the annual growth at study facilities. This projected annual growth was added to the Existing (2022) traffic counts to develop initial Near-Term (2030) without Project traffic forecasts. A list of approved projects within the vicinity of the Project Site (see **Section 4.0 Environmental Setting**) was identified and used to estimate vehicle trips to compare to the Project.

For the Project’s cumulative analysis, intersection operations were evaluated using the HCM methodology. Heavy vehicle percentages were consistent with existing conditions. Recognizing that ongoing and planned development in the vicinity of the Project site will likely necessitate traffic signal

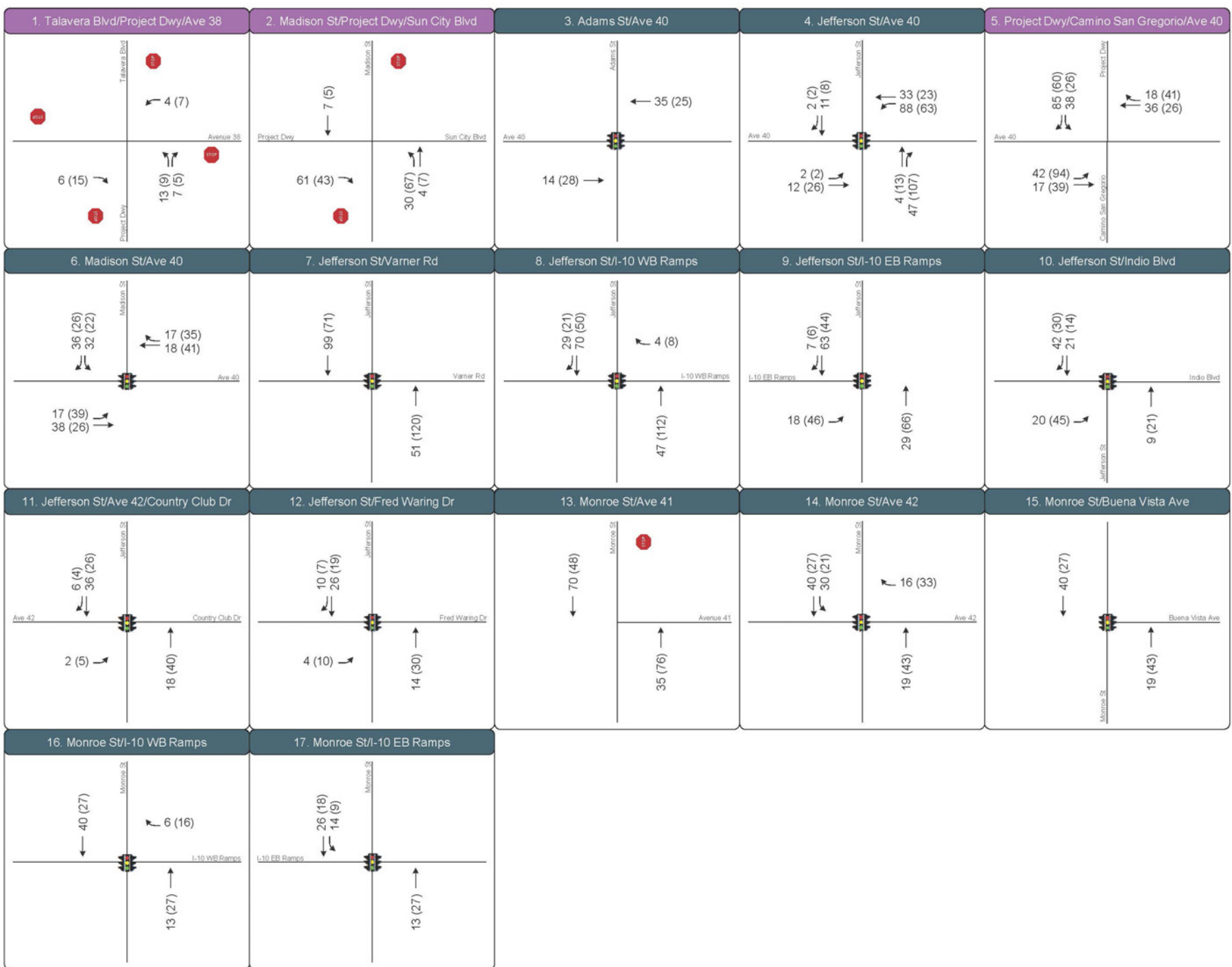
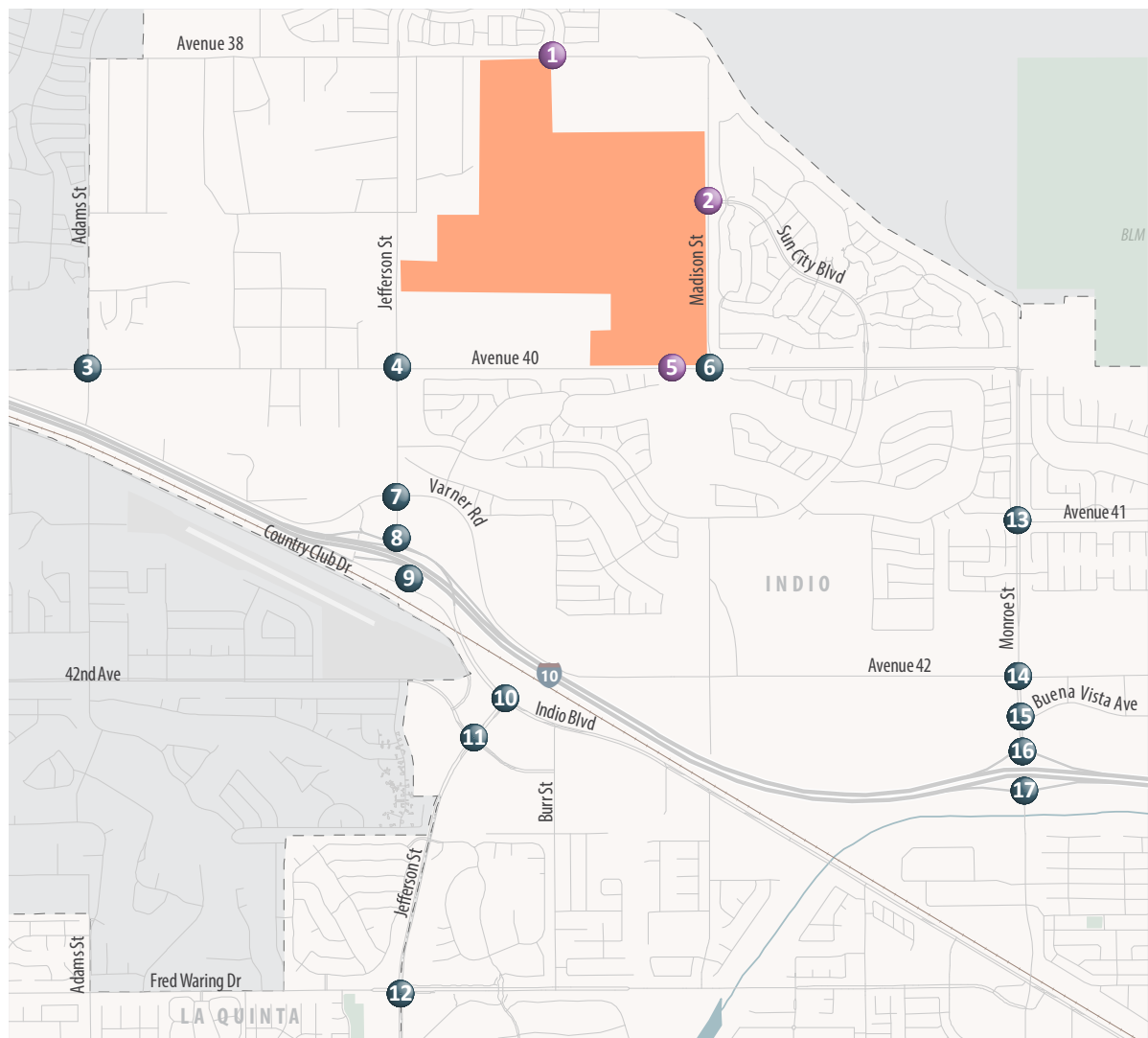
5.14 Transportation and Traffic

timing updates between the current year and 2045, traffic signal timings were optimized under the cumulative conditions when necessary.



SOURCE: Fehr & Peers – 2022

FIGURE 5.14-5



XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign
 Project Site Study Intersection Project Driveway Study Intersection



SOURCE: Source: Fehr & Peers – 2022

FIGURE 5.14-6

Per the Riverside County's Transportation Analysis Guidelines for Level of Service and Vehicle Miles Traveled (2020), the peak hour factor under Cumulative (2045) conditions was set to 1 for all of the study intersection analyzed in Synchro (Intersections 1-3, 7-17). Due to the proximity to nearby schools, the peak hour factor under Cumulative (2045) conditions were consistent with existing conditions for all of the study intersections analyzed in VISSIM (Intersections 4-6). This discussion is presented and further addressed below.

Project Impacts

Threshold 5.14-1: Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Under CEQA, a project is considered consistent with an applicable plan if it is consistent with the overall intent of the plan and would not preclude the attainment of its primary goals. A project does not need to be in perfect conformity with each and every policy. Finally, any inconsistency with an applicable plan, ordinance, or policy is only a significant impact under CEQA if the plan, ordinance, or policy was adopted for the purpose of avoiding or mitigating an environmental effect and if the inconsistency itself would result in a direct physical impact on the environment.

The City of Indio General Plan and the Project include measures and policies that support use of alternative modes of travel and no part of the Project proposal would conflict with the implementation of those facilities. The Project includes facilities to support bicycle and pedestrian use, as described further below.

Transit Access

The project would result in a significant impact related to transit service if the following criterion is met:

- The project disrupts an existing transit facility or service or interferes with the implementation of future transit service.

The Project would provide pedestrian linkages along the frontage of the Project Site to existing bus stops by constructing sidewalks along Avenue 38, Jefferson Street, Madison Street, and Avenue 40, with ADA accessible crosswalks at intersections. The Project would not disrupt an existing transit facility or service and would not interfere with the implementation of future transit service. For these reasons, the Project's impact to transit would be less than significant.

Bicycle Access

The project would create a significant impact related to the bicycle system if any of the following criteria are met:

- Disrupt existing bicycle facilities; or

- Interfere with planned bicycle facilities; or
- Cause other changes to the bicycle system that would be inconsistent with performance expectations established in adopted bicycle system plans, guidelines, policies, or standards.

Adjacent to the Project Site is an existing Class I bicycle path on Jefferson Street, between Avenue 38 and Avenue 39; Class II bicycle lanes on Avenue 38 between Dune Palms Road and Madison Street; and Class II bicycle lanes on Avenue 40 between Jefferson Street and Monroe Street. Class I bicycle paths are proposed adjacent to the Project Site on Jefferson Street between Avenue 39 and Varner Road. Class II bicycle lanes are also planned on Madison Street between Avenue 38 and Avenue 40.

The Project would improve the roadway frontage adjacent to the Project Site and widen Madison Street to accommodate bicycle lanes. The Project would implement a standard traffic signal at the main entrance, which would be compatible with the planned bicycle facilities in the area.

Additionally, the General Plan parking policies direct new developments to limit on-street parking and provide safe and secure bicycle parking. The Project would develop up to 1,500 single-family active adult dwelling homes within the 377-acre specific plan area. Off-street parking for the Community Clubhouse would be designed to accommodate resident and employee parking and limit on-street parking. Each dwelling home would have a parking garage to limit on-street parking and provide safe and secure bicycle storage. Therefore, the Project's impact to the bicycle system would be less than significant.

Pedestrian Access

The project would create a significant impact related to the pedestrian system if any of the following criteria are met:

- Disrupt existing pedestrian facilities; or
- Interfere with planned pedestrian facilities; or
- Cause other changes to the pedestrian system that would be inconsistent with performance expectations established in adopted pedestrian system plans, guidelines, policies, or standards, including the Americans with Disabilities Act (ADA).

Pedestrian facilities are provided along most roadways in Indio where land uses have been developed adjacent to the roadway. Within the study area, limited pedestrian facilities are provided. While many signalized intersections in the area have marked crosswalks, pedestrian signals, and push buttons, there are very few sidewalks adjacent to the Project site.

As further described in **Section 3.0: Project Description** of this Draft EIR, the proposed Project includes an integrated connected network of pedestrian paseos through open space areas and sidewalks on streets, and multi-use paths to accommodate various modes of transportation including golf carts, bicycles, and pedestrian movement.

The Project would include the construction of sidewalks along the frontages on Avenue 38, Jefferson Street, Madison Street, and Avenue 40, with ADA accessible crosswalks at intersections. The proposed traffic signal would facilitate safe pedestrian crossing at the Project's main entrance.

The Project does not disrupt existing pedestrian facilities, interfere with planned pedestrian facilities, or propose any changes to the pedestrian system that would be inconsistent with pedestrian system policies. Frontage improvements on local roadways and residential streets internal to the Project Site would be designed using complete street principals. Additionally, the Project would not preclude the repurposing of unneeded roadway pavement to implement lane reductions for bicycle and pedestrian improvements.

The Project would provide for all types of access and the Project would not conflict with adopted policies, plans, or programs regarding transit, roadway, bicycle, or pedestrian facilities. Impacts would be considered less than significant.

Threshold 5.14-2: Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

According to CEQA Guidelines Section 15064.3 (b),

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

VMT Screening

For the purposes of CEQA, level of service cannot be used to determine a project's environmental impact. CEQA Guidelines Section §15064.3 requires VMT analysis for land use developments. The City of Indio has adopted Riverside County's Transportation Analysis Guidelines for Level of Service and Vehicles Miles Traveled (2020). VMT impacts for a project are considered to be less than significant if any one of the following screening criteria outlined below are met:

Criterion #1: Small Project

The total Project would construct up to 1,500 single family dwelling units. The proposed Project does not meet the condition (less than 110 dwelling units) necessary to satisfy Criterion #1.

Criterion #2: Projects Near High Quality Transit

The nearest transit stop to the Project site is approximately 2.6 miles away. The proposed Project does not meet the condition (major transit stop within one-half mile away) necessary to satisfy Criterion #2.

Criterion #3: Affordable Residential Development

The Project would not provide any affordable residential housing. The proposed Project does not meet the condition (high percentage of affordable housing) necessary to satisfy Criterion #3.

Criterion #4: Map-Based Screening

There is no readily available map-based screening tool available for Eastern Riverside County. The proposed Project cannot use a map-based screening tool to satisfy Criterion #4.

Criterion #5: Redevelopment Project

The Project would be constructed on a vacant parcel and would not replace any existing VMT-generating land uses. The proposed Project does not meet the condition necessary to satisfy Criterion #5.

Because the proposed Project does not satisfy any of these screening criteria VMT analysis was completed as described below:

VMT Analysis

The VMT analysis was completed using the Baseline RIVCOM, as presented in **Table 5.14-7: Project Generated VMT**. As addressed above, the RIVCOM model is the most appropriate tool available to address VMT impacts and uses the year 2018 as the Baseline for modeling. The home-based VMT per capita threshold was determined under “No Project” conditions. The proposed Project was then added to the model to evaluate “With Project” conditions. To represent the Project TAZ, 2,700 persons and 1,500 single family households were added, reflective of an estimated persons per household ratio of 1.8.

The Project generated VMT per capita under Baseline conditions of 11.6 is 22 percent lower than the countywide average of 14.9. It is anticipated that based on the Project type (active adult living) and location (access to regional freeways and other goods and services), that the Project will generate VMT on a per capita basis lower than the County-wide average. Therefore, the Project’s impact to VMT would be less than significant.

TABLE 5.14-7 PROJECT GENERATED VMT			
Scenario	VMT per Capita		
	County-wide Average	Project	Below County Average?
Baseline	14.9	11.6	Yes

Source: Fehr & Peers, Table 8, 2022.

LOS Analysis

The LOS operations analysis was completed to determine the consistency of the Project with applicable transportation policies. The City generally strives to maintain LOS D or better as a guideline for intersection operations, as outlined in the City of Indio General Plan (General Plan) approved in 2019.

Near Term (2030) Conditions

The Near Term (2030) conditions present intersection operations under Near-Term (2030) conditions without and with the Project. Near-Term conditions represent projected traffic volumes expected to occur by the time the proposed Project is likely to be fully developed. The only Near-Term (2030) roadway improvement assumed was the completion of I-10/Monroe Street interchange improvements.

Near-Term (2030) without Project intersection turning movement forecasts are presented in **Figure 5.14-7: Near-Term (2030) without Project Intersection Turning Movement Volumes**. Project trips from **Figure 5.14-6** were then added to develop Near-Term (2030) with Project intersection turning movement forecasts, as presented in **Figure 5.14-8: Near-Term (2030) with Project Intersection Turning Movement Volumes**.

Intersection Operations

Intersection operations under Near-Term (2030) conditions, with and without the Project, are presented in **Table 5.14-8: Near-Term (2030) Intersection Levels of Service**. Under Near-Term (2030) without Project conditions, the following intersections would not meet the City's LOS D standard during at least one peak hour:

- Jefferson Street and Avenue 40 (Intersection 4) would operate at LOS F during the AM and PM peak hours.
- Monroe Street and Avenue 41 (Intersection 13); the westbound left movement would operate at LOS E during the AM peak hour.

Under Near-Term (2030) with Project conditions, the following intersections would not meet the City's LOS D standard during at least one peak hour:

- Jefferson Street and Avenue 40 (Intersection 4) would continue to operate at LOS F during the AM and PM peak hours.

- Monroe Street and Avenue 41 (Intersection 13); the westbound left movement would degrade from LOS E to LOS F during the AM peak hour.

**TABLE 5.14-8
NEAR-TERM (2030) INTERSECTION LEVELS OF SERVICE**

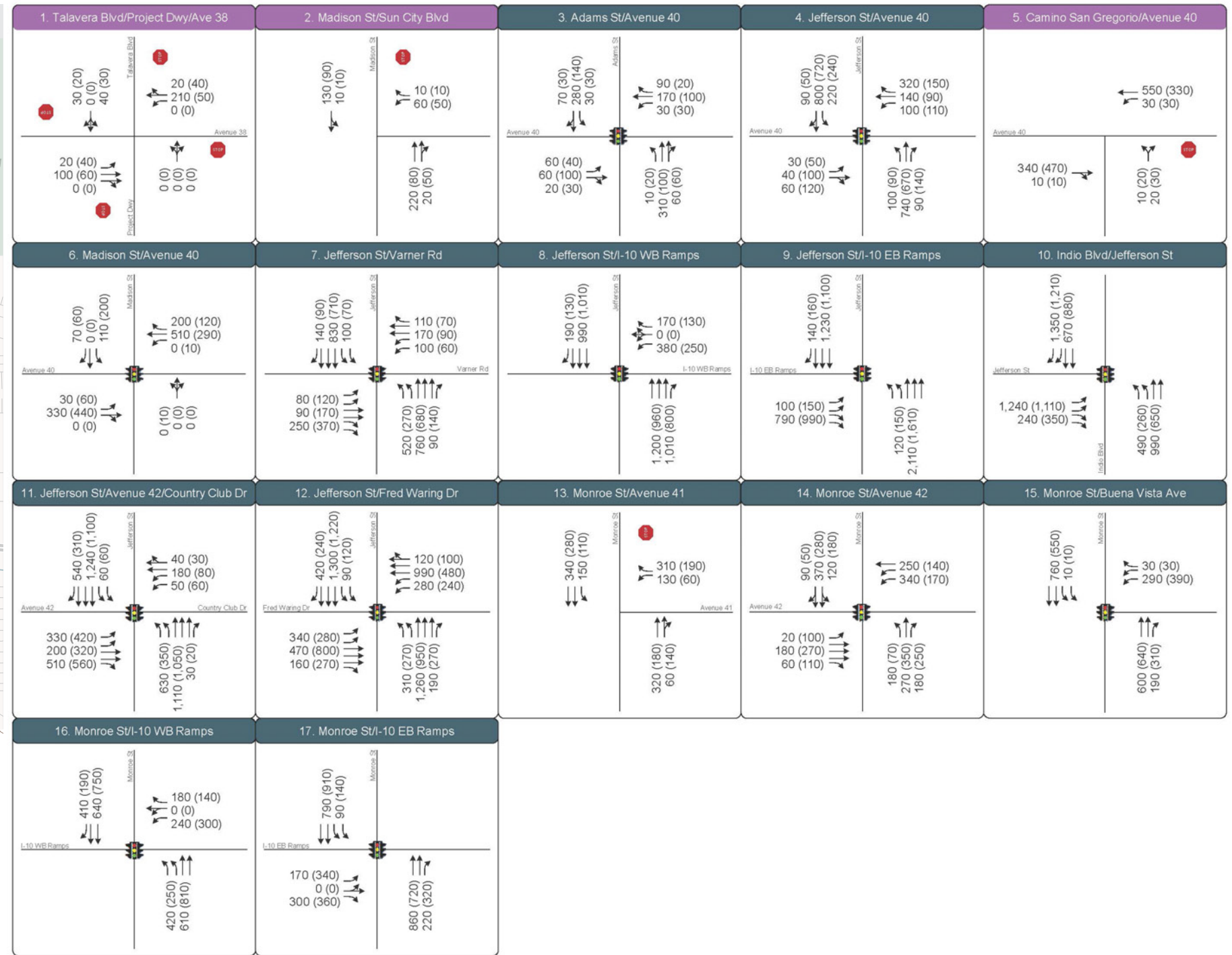
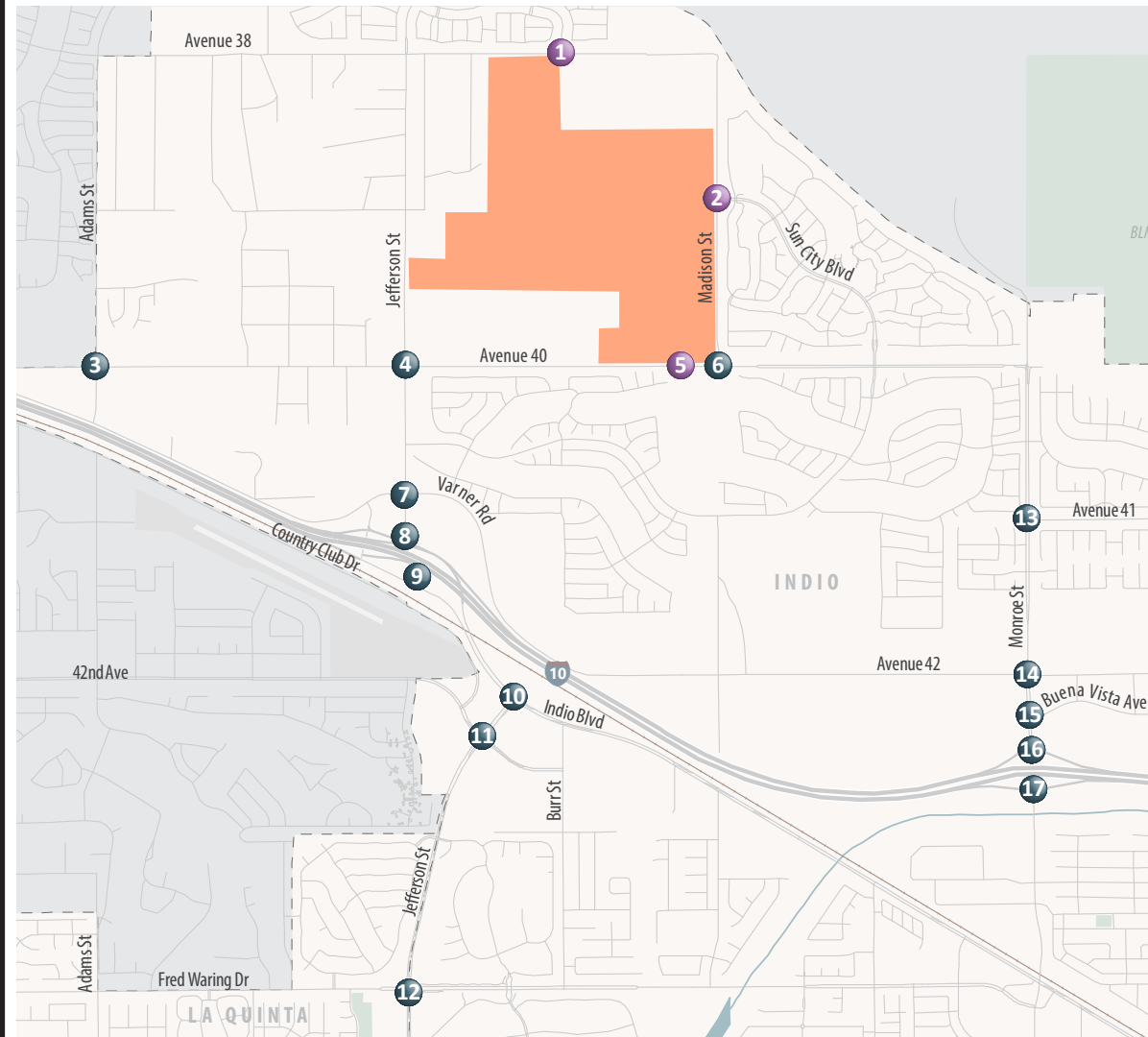
Intersection	Control ^a	Peak Hour	Near-Term without Project Conditions		Near-Term with Project Conditions	
			LOS ^b	Delay ^b	LOS ^b	Delay ^b
1 Avenue 38 and Talavera Boulevard/Project Driveway	AWSC	AM	B	11	B	12
		PM	A	8	A	8
2 Madison Street and Sun City Boulevard/Project Driveway	SSSC	AM	A (B)	2 (14)	A (C)	4 (18)
		PM	A (B)	2 (11)	BA (B)	4 (14)
3 Adams Street and Avenue 40	Signal	AM	A	9	A	9
		PM	A	8	A	8
4 Jefferson Street and Avenue 40	Signal	AM	F	151	F	185
		PM	F	139	F	165
5 Avenue 40 and Camino San Gregorio/Project Driveway	SSSC	AM	A (A)	1 (5)	A (B)	3 (13)
		PM	A (A)	1 (5)	A (B)	2 (12)
6 Madison Street and Avenue 40	Signal	AM	A	10	B	11
		PM	B	14	B	14
7 Jefferson Street and Varner Road	Signal	AM	D	45	D	41
		PM	D	35	C	34
8 Jefferson Street and I-10 Westbound Ramps	Signal	AM	A	7	A	6
		PM	A	4	A	4
9 Jefferson Street and I-10 Eastbound Ramps	Signal	AM	D	21	C	21
		PM	D	36	D	35
10 Jefferson Street and Indio Boulevard	Signal	AM	D	43	D	46
		PM	D	48	D	51
11 Jefferson Street and Avenue 42/Country Club Drive	Signal	AM	D	35	D	35
		PM	D	36	D	36
12 Jefferson Street and Fred Waring Drive	Signal	AM	D	43	D	44
		PM	D	36	D	36
13 Monroe Street and Avenue 41	SSSC	AM	B (F)	11 (67)	B (F)	13 (95)
		PM	A (C)	4 (19)	A (C)	4 (23)
14 Monroe Street and Avenue 42	Signal	AM	C	33	D	37
		PM	C	35	D	41
15 Monroe Street and Buena Vista Avenue	Signal	AM	A	9	A	9
		PM	A	9	A	9
16 Monroe Street and I-10 Westbound Ramps	Signal	AM	A	10	B	11
		PM	A	9	A	9
17 Monroe Street and I-10 Eastbound Ramps	Signal	AM	B	8	A	8
		PM	B	12	B	12

Source: Fehr & Peers, Table 9, 2022.

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibel; Ldn = day-night level; Deficient intersection operations are noted in bold text.

^a SSSC = side-street stop-controlled intersection; AWSC = all-way stop-control.

^b For SSSC intersections, LOS/delay is presented as: Intersection Average (Worst Movement).



XX (YY) AM (PM) Peak Hour Traffic Volumes

Signalized Intersection

Stop Sign

Project Site

Study Intersection

Project Driveway Study Intersection

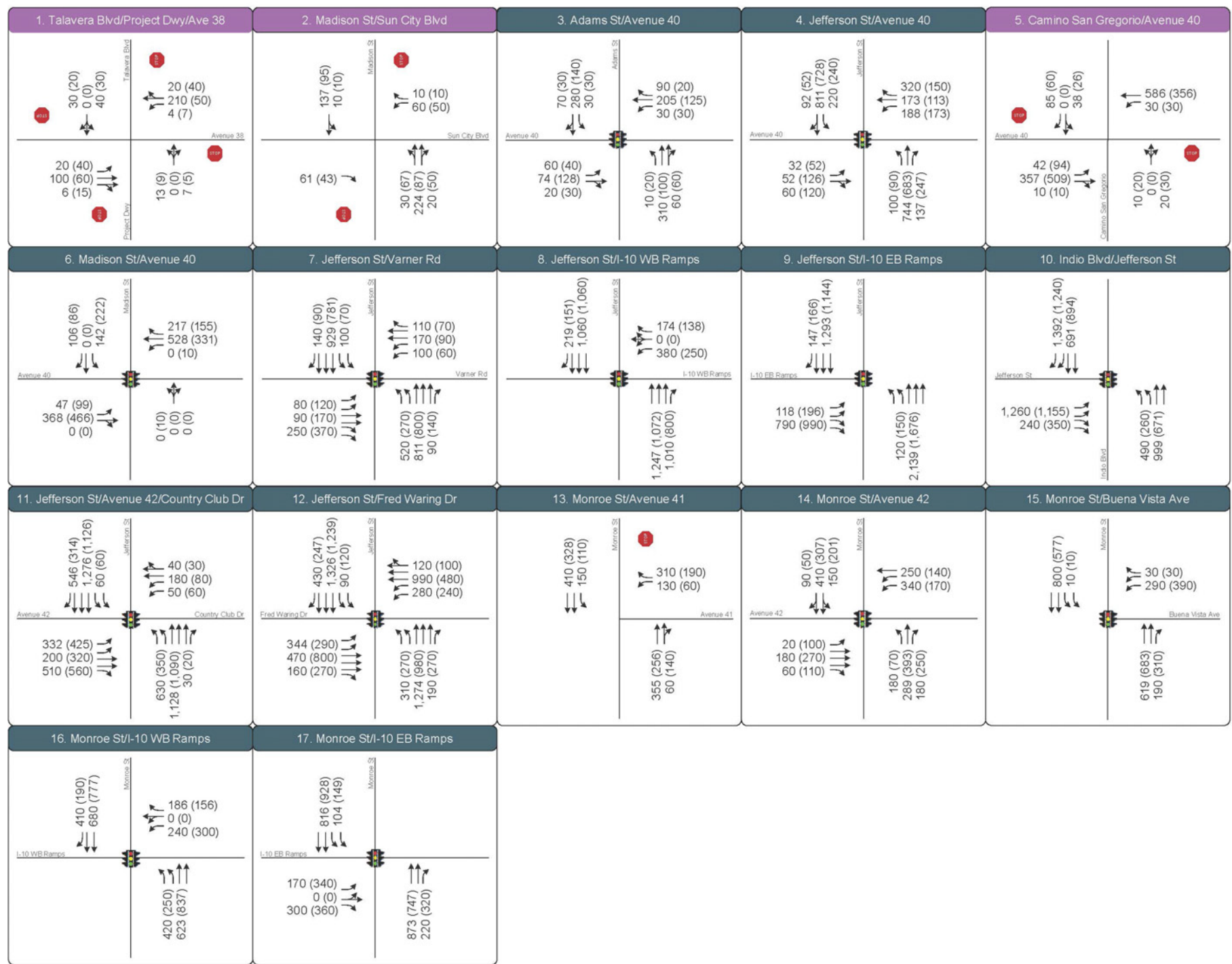
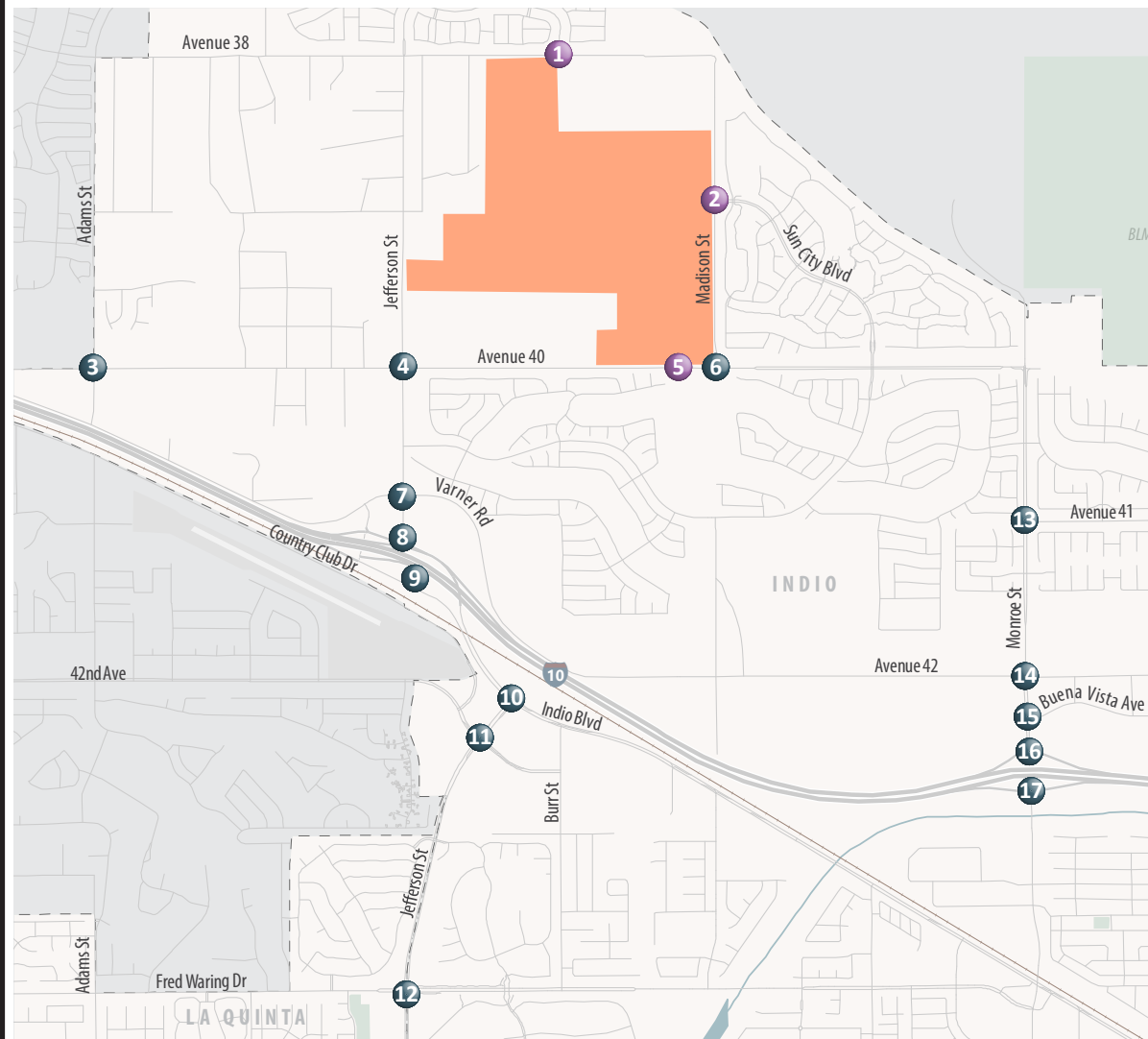


SOURCE: Source: Fehr & Peers – 2022

FIGURE 5.14-7



Near-Term (2030) without Project Intersection Turning Movement Volumes



XX (YY) AM (PM) Peak Hour Traffic Volumes
 Signalized Intersection Stop Sign
 Project Site Study Intersection Project Driveway Study Intersection



SOURCE: Source: Fehr & Peers – 2022

FIGURE 5.14-8



Near-Term (2030) with Project Intersection Turning Movement Volumes

Peak Hour Signal Warrant

Peak hour traffic signal warrants under Near-Term (2030) conditions, with and without the Project, were reviewed at the unsignalized study intersections in **Table 5.14-3**. Under Near-Term (2030) without Project conditions, the peak hour signal warrant is satisfied at:

- Monroe Street and Avenue 41 (Intersection 13)

Under Near-Term (2030) with Project conditions, the peak hour signal warrant is satisfied at:

- Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5)
- Monroe Street and Avenue 41 (Intersection 13)

Table 5.14-9: Near-Term (2030) Peak Hour Signal Warrants describes the identified intersections which meet the criteria warranting the installation of a traffic signal.

TABLE 5.14-9 NEAR-TERM (2030) PEAK HOUR SIGNAL WARRANTS					
	Intersection	Control ^a	Peak Hour	Signal Warrant Met?	
				Near-Term without Project Conditions	Near-Term with Project Conditions
1	Avenue 38 and Talavera Boulevard/Project Driveway	AWSC	AM PM	No No	No No
2	Madison Street and Sun City Boulevard/Project Driveway	SSSC	AM PM	No No	No No
5	Avenue 40 and Camino San Gregorio/Project Driveway	SSSC	AM PM	No No	Yes Yes
13	Monroe Street and Avenue 41	SSSC	AM PM	Yes No	Yes Yes

Source: Fehr & Peers, Table 10, 2022.

^a SSSC = side-street stop-controlled intersection; AWSC = all-way stop-control.

Roadway Segment Operations

Roadway segment operations under Near-Term (2030) conditions, with and without the Project, were evaluated using the ADT based thresholds for Riverside County with results summarized in **Table 5.14-10: Near-Term (2030) Roadway Segments**. Under Near-Term (2030) without Project conditions, the following roadway segment would not meet the City’s LOS D standard.

- Jefferson Street from Avenue 39 to Avenue 40 (Roadway Segment 4)

**TABLE 5.14-10
NEAR-TERM (2030) ROADWAY SEGMENTS**

	Roadway Segment	Roadway Classification	Near-Term without Project Conditions		Near-Term with Project Conditions	
			ADT	LOS	ADT	LOS
1	Avenue 38 from Jefferson Street to Madison Street	2-Lane Collector	2,360	A - C	2,520	A - C
2	Madison Street from Avenue 38 to Avenue 40	2-Lane Collector	3,470	A - C	5,040	A - C
3	Avenue 40 from Jefferson Street to Madison Street	2-Lane Collector	6,390	A - C	8,080	A - C
4	Jefferson Street from Avenue 39 to Avenue 40	2-Lane Collector	11,870	E	12,020	E

Source: Fehr & Peers, Table 11, 2022.

Deficient roadway segment operations are noted in **bold text**.

Threshold 5.14-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Site Access Assessment

Project access driveway intersections were evaluated for vehicles, pedestrians, bicycles, and golf carts accessibility and safety. The Project proposes three driveways for residents - one primary entrance and two secondary entrances. Primary access to the site would be provided on Avenue 40 at Camino San Gregorio. The secondary entrances are located on Madison Street at Sun City Boulevard and on Avenue 38 at Talavera Boulevard.

Intersection Control Evaluation

The three residential driveways were evaluated to review appropriate traffic control options based on peak hour traffic volumes.

Avenue 38 and Talavera Boulevard/Project Driveway (Intersection 1): This intersection has one northbound shared left/through/right lane for vehicles exiting the site. To access the Project site, vehicles could use the existing shared eastbound through/right-turn lane, or the existing westbound left-turn pocket. This intersection is currently an all-way stop-controlled. The intersection would not satisfy the peak hour signal warrant under Near-Term (2030) with Project conditions. As such, the intersection of Avenue 38 and Talavera Boulevard/Project Driveway should remain an all-way stop-controlled intersection.

Madison Street and Sun City Boulevard/Project Driveway (Intersection 2): This intersection has one eastbound shared left/through/right lane for vehicles exiting the site. To access the Project site, vehicles could use the existing shared northbound through/left-turn lane, or the existing southbound shared

left/through/right turn lane. The intersection is currently side-street stop-controlled. The intersection satisfies an all-way-stop control warrant based on guidance from the California Manual on Uniform Traffic Control Devices (CA MUTCD) under Option D - the intersection would join two residential neighborhood collector streets of similar design and operating characteristics. The intersection would not satisfy the peak hour signal warrant under Near-Term (2030) with Project conditions. As such, the intersection of Madison Street and Sun City Boulevard/Project Driveway is recommended to be all-way stop-controlled intersection.

Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5): This intersection has one southbound shared left/through lane and one right turn lane for vehicles exiting the site. To access the Project Site, vehicles could use the existing two-way-left-turn lane for vehicles traveling eastbound, or the existing westbound shared through/right-turn lane. The intersection is currently side-street stop-controlled. The intersection satisfies an all-way-stop control warrant based on guidance from the California Manual on Uniform Traffic Control Devices (CA MUTCD) under Criteria A. The intersection does not meet any of the other all-way stop control warrants criteria or options. The intersection satisfies the peak hour signal warrant under Near-Term (2030) with Project conditions. A standard traffic signal is proposed at this intersection.

Based on the results of the all-way stop and peak hour signal warrants, the intersection operations were evaluated under Near-Term (2030) with Project and Cumulative (2045) with Project conditions using the VISSIM 2022 microsimulation model. Intersection operations are presented in **Table 5.14-11: Intersection Control Evaluation – Near-Term (2030) with Project (LOS)**. The intersection of Avenue 40 and Camino San Gregorio/Project Driveway under Near-Term (2030) and Cumulative (2045) conditions would operate at LOS B or better for either of the three intersection control alternatives.

TABLE 5.14-11 INTERSECTION CONTROL EVALUATION – NEAR-TERM (2030) WITH PROJECT (LOS)						
PEAK	SSSC1	SIGNAL				
		Hour	LOS	Delay	LOS	Delay
5	Avenue 40 and Camino San Gregorio/Project Driveway	AM	A (B)	3 (13)	B	12
		PM	A (B)	2 (12)	B	15

Source: Fehr & Peers, Table 18, 2022.

Notes:

SSSC = side-street stop-controlled intersection. For SSSC intersections, LOS/delay is presented as: Intersection Average (Worst Movement).

Potentially deficient intersection operations are noted in bold text.

Maximum vehicle queues for each of the three intersection control alternatives are presented in **Table 5.14-12: Intersectional Control Evaluation – Vehicle Queues**. Under Near-Term (2030) with Project conditions, maximum vehicle queues are exceeded for the following movements:

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- Westbound left-turn at Jefferson Street and Avenue 40 (Intersection 4) - All Alternatives.
- Westbound right-turn at Jefferson Street and Avenue 40 (Intersection 4) - All Alternatives (AM Only).
- Eastbound left-turn at Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5) - Signal Alternative (PM Only).
- Westbound left-turn at Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5) - Signal Alternative.

**TABLE 5.14-12
INTERSECTION CONTROL EVALUATION – VEHICLE QUEUES**

	Intersection	Movement ¹	Storage	Side-Street Stop		Signal	
			(feet)	AM	PM	AM	PM
4	Jefferson Street and Avenue 40	WB L	150 ²	300	250	250	275
		WB T	4,500	275	175	225	175
		WB R	175	250	175	300	150
		NB L/T/R	100	50	50	75	75
		SB L/T	100	50	50	100	75
		SB R	100	75	75	75	75
5	Avenue 40 and Camino San Gregorio/Project Driveway	EB L	100 ²	75	75	100	450
		EB T/R	4,500	-	-	250	450
		EB L/T/R	4,500	-	-	-	-
		WB L	100 ²	50	50	125	125
		WB T/R	500	-	-	475	300
		WB L/T	500	-	-	-	-
6	Madison Street and Avenue 40	WB R	500	-	-	-	-
		EB L	175 ²	50	100	50	75
		EB T	500	175	325	175	275

Source: Fehr & Peers. Table 19, 2022.

Notes:

1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left-Turn; T = Through; R = Right-Turn.
2. There is a two-way-left turn lane that provides adequate queue storage at this location.
3. Movements that exceed the available queue storage are noted in bold.

Main Project Entrance on Avenue 40

Vehicular access to the Project Site would be provided by a main entry at Avenue 40 and two secondary entrances on Madison Street and Avenue 38. Vehicles can circulate within the Project Site between these three entries.

The Project proposes a standard intersection with traffic controlled by stop signs at the side streets to Avenue 40 (the new entrance street to the Project and the existing street, Camino San Gorgonio, that is

the entry to Sun Shadow Hills south of Avenue 40) or a new traffic signal. A primary safety consideration at intersections is the number of conflict points - defined as locations at an intersection where vehicle, bicycle, golf cart, or pedestrian paths merge, diverge, or cross. Intersection configurations with fewer conflict points can reduce the potential for head-on, broadside, and vehicle/pedestrian collisions. Assuming that pedestrians may cross at either of the four legs of the intersection:

- A standard intersection controlled by stop signs on the side streets or a traffic signal would have 32 vehicle conflict points and 24 pedestrian conflict points.

The number of bicycle and golf cart conflict points would be similar to either the vehicle or pedestrian conflict points depending on the facility they choose to travel on.

Although the maximum vehicle queues are exceeded at various turn pockets as shown in **Table 5.14-12** at Jefferson Street and Avenue 40 (Intersection 4) and Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5), along Avenue 40 there is a two-way-left turn lane that provides adequate queue storage. Additionally, maximum vehicle queues at both right-turn and left-turn pockets would not spill into adjacent intersections and can be contained within the through movement storage.

The main project driveway at the intersection of Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5) and the intersection of Jefferson Street and Avenue 40 (Intersection 4) are roughly 4,500 feet apart. The intersection of Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5) and the intersection of Madison Street and Avenue 40 (Intersection 6) are roughly 500 feet apart. Vehicle queues from the intersection of Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5), under Near-Term (2030) conditions, would not spill into either of the adjacent intersections for either of the three intersection control alternatives.

The standard intersection proposed at the main entry on Avenue 40 would minimize hazards at this location. The Project does not propose any features that represent substandard design features. Impacts would be less than significant.

Threshold 5.14-4: Result in inadequate emergency access?

Factors such as the number of access points, roadway width, and proximity to fire stations determine whether a project provides enough emergency access. The fire station most likely to serve the site is Riverside County Fire Department Station 80, located at 81024 Avenue 40, directly adjacent to the Project site. Emergency vehicles could travel westbound on Avenue 40 or northbound on Madison Street to access the Project site. Internal roadways are designed to accommodate large trucks and emergency vehicles. All Project entrances and roadway improvements are subject to Riverside County Fire Department review as well as the City's Engineering Services Division.

Prior to obtaining a grading permit, the Applicant shall prepare a detailed construction traffic management plan and submit to Caltrans, the Riverside County Fire Department, and the City of Indio for review. The plan would include street closure information, detour plans, haul routes, and staging plans

as necessary for any off-site work that would encroach on public right-of-way. Emergency Vehicle Access to the Project sites proposed is available at the main entry at Avenue 40, two secondary entrances on Madison Street and Avenue 38, and at an additional emergency access road off Avenue 40 west of the main entry. If one entrance is blocked, emergency personnel could access the site from multiple other entry points. Furthermore, the Project’s impact to emergency access would be less than significant.

CUMULATIVE CONDITIONS

Cumulative VMT Analysis

Table 5.14-13: Project Generated VMT – 2045 below illustrates the Project’s cumulative 2045 impact. As shown, the Project would be approximately 24 percent below the County’s projected average VMT per capita of 15.8 in 2045 and would not contribute to cumulative VMT impacts for this reason.

TABLE 5.14-13 PROJECT GENERATED VMT – 2045			
Scenario	VMT per Capita		Below County Average?
	Countywide Average	Project	
Cumulative	15.8	12.0	Yes

Source: Fehr & Peers, Table 8, 2022.

Cumulative LOS Analysis

Intersection operations under Cumulative (2045) conditions without and with the Project were analyzed. Cumulative conditions represent projected traffic volumes and future roadway improvements generally consistent with the City of Indio General Plan.

The analysis of 2045 conditions assumes future roadway improvements planned in the City of Indio General Plan and the project list in the Connect SoCal 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (Southern California Association of Governments (SCAG), 2020) plus Amendment 1 (SCAG, 2021) to the Existing (2022) roadway geometry.

The Cumulative (2045) conditions analysis assumes:

- All planned roadway improvements that are consistent between the General Plan and the Connect SoCal 2020 RTP/SCS.
- For planned roadway improvements that are not consistent between the General Plan and the Connect SoCal 2020 RTP/SCS, analysis assumptions were verified with City of Indio staff.
- The completion of the I-10/Monroe Street interchange (also included in the Near-Term (2030) analysis).

Cumulative (2045) without Project intersection turning movement forecasts are presented in **Figure 5.14-9: Cumulative (2045) without Project Intersection Turning Movement Volumes**. Project trips

from Figure 5.14-6 were then added to develop Cumulative (2045) with Project intersection turning movement forecasts, as presented in Figure 5.14-10: Cumulative (2045) with Project Intersection Turning Movement Volumes.

Intersection Operations

Intersection operations under Cumulative (2045) conditions, with and without the Project, are presented in Table 5.14-14: Cumulative (2045) Intersection Levels of Service.

TABLE 5.14-14 CUMULATIVE (2045) INTERSECTION LEVELS OF SERVICE							
Intersection	Control ^a	Peak Hour	Cumulative (2045) without Project Conditions		Cumulative (2045) with Project Conditions		
			LOS ^b	Delay ^b	LOS ^b	Delay ^b	
1 Avenue 38 and Talavera Boulevard/Project Driveway	AWSC	AM	A	8	A	9	
		PM	A	8	A	8	
2 Madison Street and Sun City Boulevard/Project Driveway	SSSC	AM	A (B)	2 (12)	A (B)	3 (14)	
		PM	A (B)	2 (10)	A (B)	4 (13)	
3 Adams Street and Avenue 40	Signal	AM	A	9	A	9	
		PM	A	8	A	8	
4 Jefferson Street and Avenue 40	Signal	AM	D	40	D	49	
		PM	D	37	D	50	
5 Avenue 40 and Camino San Gregorio/Project Driveway	SSSC	AM	A (B)	1 (11)	A (B)	2 (11)	
		PM	A (A)	1 (10)	A (A)	2 (12)	
6 Madison Street and Avenue 40	Signal	AM	A	8	A	9	
		PM	B	11	B	11	
7 Jefferson Street and Varner Road	Signal	AM	D	43	D	40	
		PM	C	34	C	33	
8 Jefferson Street and I-10 Westbound Ramps	Signal	AM	A	6	A	6	
		PM	A	4	A	4	
9 Jefferson Street and I-10 Eastbound Ramps	Signal	AM	C	28	C	28	
		PM	C	25	C	25	
10 Jefferson Street and Indio Boulevard	Signal	AM	D	30	D	30	
		PM	C	26	C	26	
11 Jefferson Street and Avenue 42/Country Club Drive	Signal	AM	C	35	C	35	
		PM	D	40	D	40	
12 Jefferson Street and Fred Waring Drive	Signal	AM	D	41	D	41	
		PM	D	37	D	37	
13 Monroe Street and Avenue 41	SSSC	AM	B (F)	10 (58)	B (F)	12 (77)	
		PM	A (C)	6 (19)	A (C)	6 (22)	
14 Monroe Street and Avenue 42	Signal	AM	C	31	C	32	
		PM	C	28	C	29	
15 Monroe Street and Buena Vista Avenue	Signal	AM	B	15	B	15	
		PM	B	15	B	15	
16 Monroe Street and I-10 Westbound Ramps	Signal	AM	B	13	B	13	
		PM	A	10	A	10	
17 Monroe Street and I-10 Eastbound Ramps	Signal	AM	B	14	B	14	
		PM	B	16	B	16	

**TABLE 5.14-14
CUMULATIVE (2045) INTERSECTION LEVELS OF SERVICE**

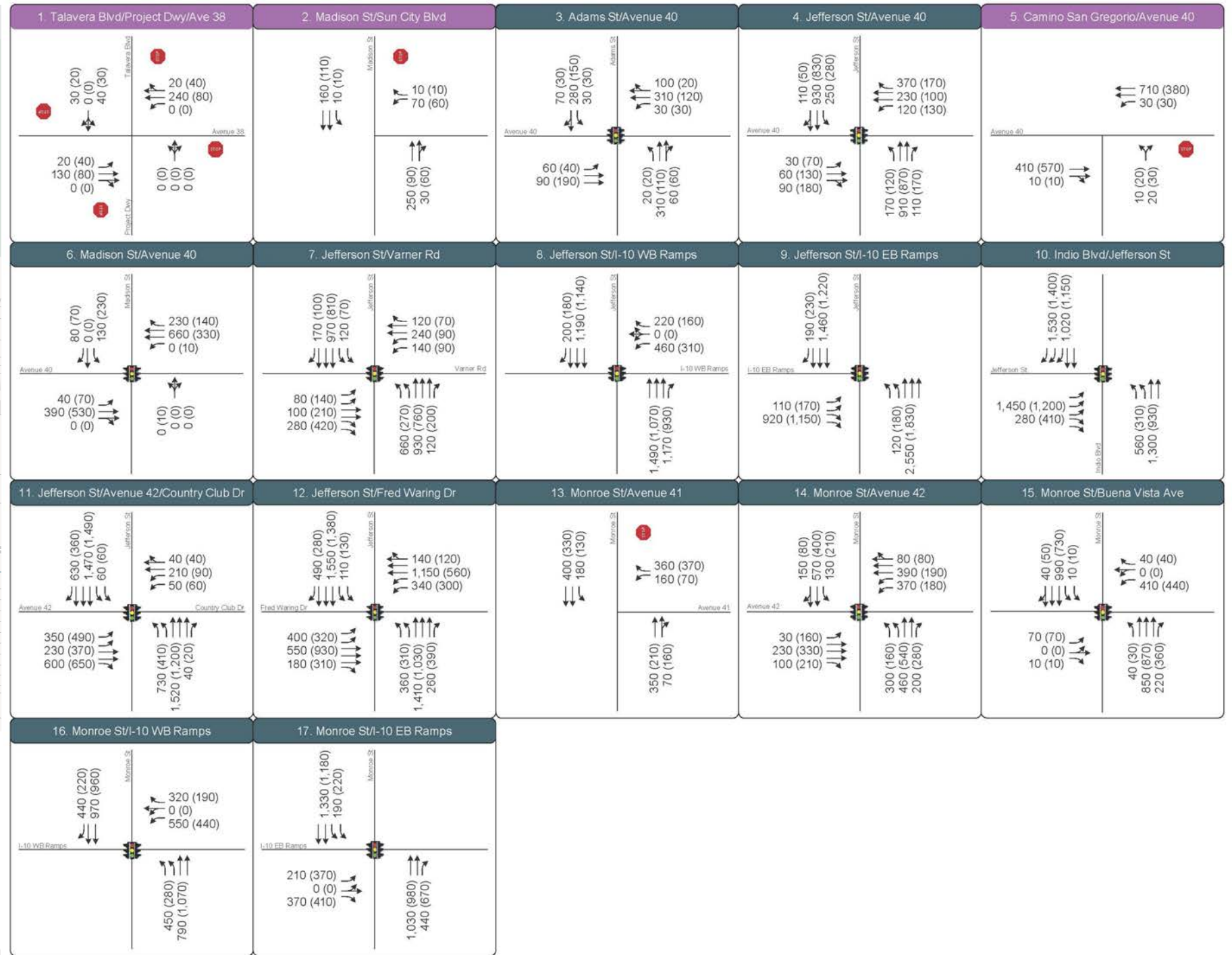
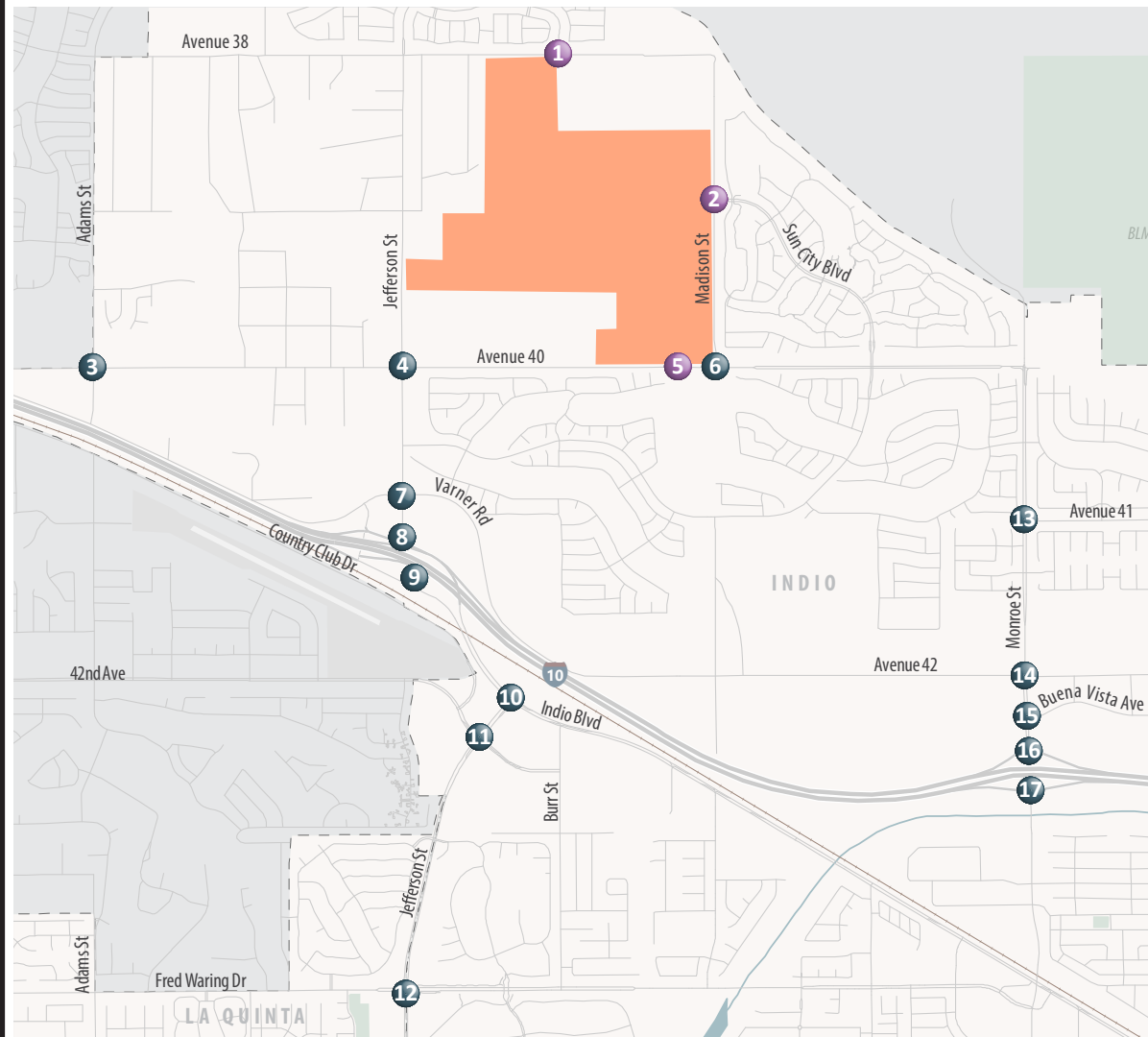
Intersection	Control ^a	Peak Hour	Cumulative (2045) without Project Conditions		Cumulative (2045) with Project Conditions	
			LOS ^b	Delay ^b	LOS ^b	Delay ^b

Source: Fehr & Peers, Table 14, 2022. See Appendix K.

Notes: Deficient intersection operations are noted in bold text.

^a SSSC = side-street stop-controlled intersection; AWSC = all-way stop-control.

^b For SSSC intersections, LOS/delay is presented as: Intersection Average (Worst Movement).



XX (YY) AM (PM) Peak Hour Traffic Volumes

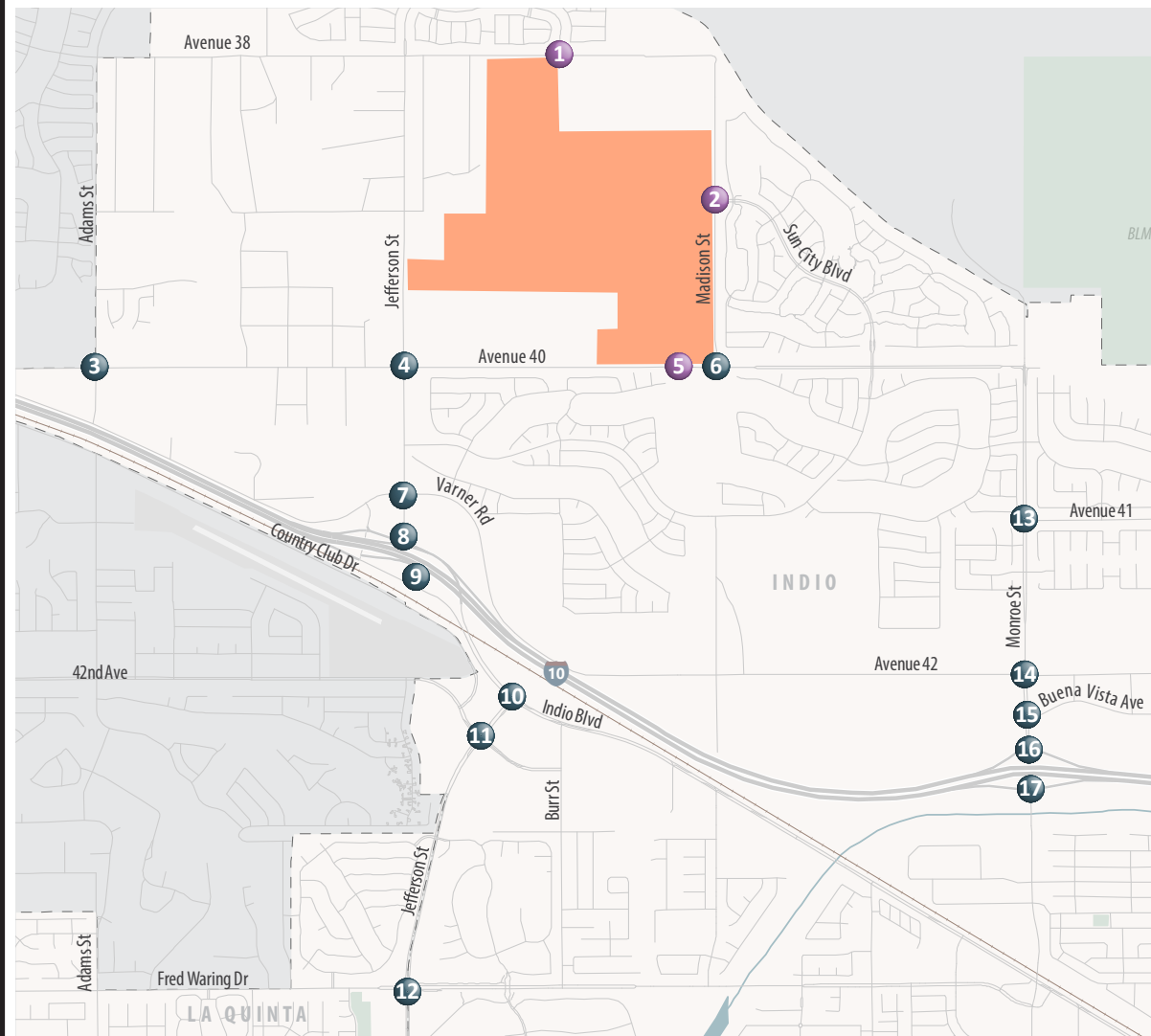
Signalized Intersection Stop Sign

Project Site Study Intersection Project Driveway Study Intersection



SOURCE: Source: Fehr & Peers – 2022

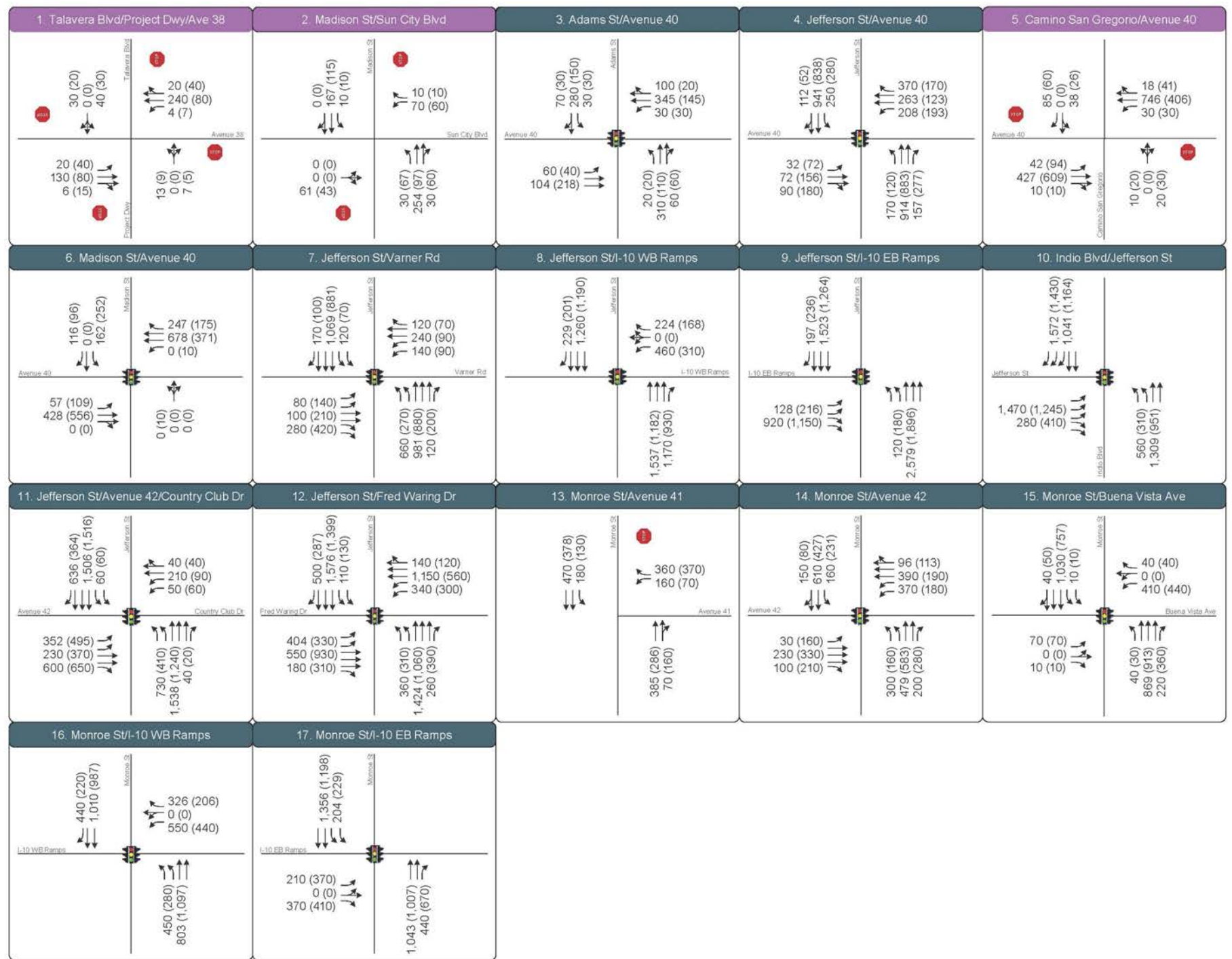
FIGURE 5.14-9



XX (YY) AM (PM) Peak Hour Traffic Volumes

Signalized Intersection Stop Sign

Project Site Study Intersection Project Driveway Study Intersection



SOURCE: Source: Fehr & Peers – 2022

FIGURE 5.14-10

Under Cumulative (2045) without Project conditions, the following intersection would not meet the City’s LOS standard during at least one peak hour:

- Monroe Street and Avenue 41 (Intersection 13); the westbound left movement would operate at LOS F during the AM peak hour.

Under Cumulative (2045) with Project conditions, the following intersection would not meet the City’s LOS standard during at least one peak hour:

- Monroe Street and Avenue 41 (Intersection 13); the westbound left movement would continue to operate at LOS F during the AM peak hour.

All other study intersections operate at acceptable service levels.

Peak Hour Signal Warrant

Peak hour traffic signal warrants under Cumulative (2045) conditions, with and without the Project, were reviewed at the unsignalized study intersections in **Table 5.14-15: Cumulative (2045) Peak Hour Signal Warrants**. Under Cumulative (2045) without Project conditions, the peak hour signal warrant is satisfied at:

- Monroe Street and Avenue 41 (Intersection 13)

Under Cumulative (2045) with Project conditions, the peak hour signal warrant is satisfied at:

- Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5)
- Monroe Street and Avenue 41 (Intersection 13)

TABLE 5.14-15 CUMULATIVE (2045) PEAK HOUR SIGNAL WARRANTS					
	Intersection	Control ^a	Peak Hour	Signal Warrant Met?	
				Cumulative without Project Conditions	Cumulative with Project Conditions
1	Avenue 38 and Talavera Boulevard/Project Driveway	AWSC	AM	No	No
			PM	No	No
2	Madison Street and Sun City Boulevard/Project Driveway	SSSC	AM	No	No
			PM	No	No
5	Avenue 40 and Camino San Gregorio/Project Driveway	SSSC	AM	No	Yes
			PM	No	Yes
13	Monroe Street and Avenue 41	SSSC	AM	Yes	Yes
			PM	Yes	Yes

Source: Fehr & Peers, Table 15, 2022.

^a SSSC = side-street stop-controlled intersection; AWSC = all-way stop-control.

Roadway Segment Operations

Roadway segment operations under Cumulative (2045) conditions, with and without the Project, were evaluated using the ADT based thresholds for Riverside County with results summarized in **Table 5.14-16 Cumulative (2045) Roadway Segments**. Under Cumulative (2045) conditions, with and without the Project, all study roadway segments would operate at LOS C or better.

	Roadway Segment	Roadway Classification	Cumulative without Project Conditions		Cumulative with Project Conditions	
			ADT	LOS	ADT	LOS
1	Avenue 38 from Jefferson Street to Madison Street	4-Lane Collector (Secondary)	3,020	A - C	3,170	A - C
2	Madison Street from Avenue 38 to Avenue 40	4-Lane Collector (Secondary)	4,110	A - C	5,680	A - C
3	Avenue 40 from Jefferson Street to Madison Street	4-Lane Boulevard (Major)	7,550	A - C	9,240	A - C
4	Jefferson Street from Avenue 39 to Avenue 40	4-Lane Collector (Secondary)	14,330	A - C	14,490	A - C

Source: Fehr & Peers, Table 16, 2022.

MITIGATION MEASURES

As the Project will not have any significant transportation impacts, no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project is required to pay City Development Impact Fees and TUMF to fund its fair share contribution toward traffic improvements needed to accommodate cumulative increases in traffic. Therefore, no significant unavoidable adverse impacts relating to traffic and transportation have been identified.

5.15 TRIBAL CULTURAL RESOURCES

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential impacts of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact tribal cultural resources within the Project Site and in the immediate surrounding area within the City of Indio (City). Tribal cultural resources include landscapes, sacred places, or objects with cultural value to a California Native American Tribe. Impacts to cultural resources (e.g., historic, archaeological, etc.) are discussed in **Section 5.4: Cultural Resources**, and discussion on paleontological resources is provided in **Section 5.6: Geology and Soils**. The analysis in this section is based in part on the following technical report:

- *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*, Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli, Statistical Research, Inc. (SRI), December 2022. See **Appendix F**.

REGULATORY SETTING

Federal

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979¹ (ARPA) regulates the protection of archaeological resources and sites that are on federal lands and Indian lands. ARPA mandates consultation procedures before initiation of archaeological research on Indian lands or research involving Indian archaeological resources. Indian tribes are required to be notified of possible harm to or destruction of sites having religious or cultural significance to that group. Permits to excavate or remove archaeological resources from Indian lands require consent of the Indian or Indian tribe owning or having jurisdiction over the lands. The permit must include terms and conditions as may be requested by the affected Native Americans. ARPA stipulates that any exchange or ultimate disposition of archaeological resources excavated or removed from Indian lands must be subject to the consent of the Indian or Indian tribe owning or having jurisdiction over such lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony to lineal descendants and culturally affiliated Indian tribes.

¹ United States Code, tit. 16, sec. 470aa-470mm, Archaeological Resources Protection Act of 1979, Public Law 96-95, as amended.

State

Senate Bill 18 (SB 18)

SB 18 recognizes that protection of traditional tribal cultural places is important to all tribes, whether federally recognized or not, and it provides all California Native American tribes with the opportunity to participate in consultation with city and county governments for this purpose (Governor's Office of Planning and Research [OPR] 2005).

SB 18 establishes responsibilities for local governments to contact, provide notice to, refer plans to, and consult with tribes. The following list briefly identifies the contact and notification responsibilities of local governments, in sequential order of their occurrence (OPR 2005):

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission (NAHC)) of the opportunity to conduct consultations for the purpose of preserving or mitigating impacts to cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).
- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45 day comment period (Government Code §65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local governments must send notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code §65092).

Under SB 18, local governments must consult with tribes under two circumstances (OPR 2005):

- On or after March 1, 2005, local governments must consult with tribes that have requested consultation in accordance with Government Code §65352.3. The purpose of this consultation is to preserve or mitigate impacts to cultural places that may be affected by a general plan or specific plan amendment or adoption. On or after March 1, 2005, local governments must consult with tribes before designating open space, if the affected land contains a cultural place and if the affected tribe has requested public notice under Government Code §65092. The purpose of this consultation is to protect the identity of the cultural place and to develop treatment with appropriate dignity of the cultural place in any corresponding management plan (Government Code §65562.5).

In addition to the notice and consultation requirements outlined above, SB 18 amended Government Code Section 65560 to allow the protection of cultural places in the open space element of the general plan. SB 18 also amended Civil Code Section 815.3 and adds California Native American tribes to the list of entities that can acquire and hold conservation easements. Tribes on the contact list maintained by the NAHC now have the ability to acquire, on terms mutually satisfactory to the tribe and the landowner, conservation easements for the purpose of protecting their cultural places (OPR 2005).

Assembly Bill 52 (AB 52)

As of July 1, 2015, California Assembly Bill 52 (AB 52) expands CEQA by defining a new resource category: “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (Public Resources Code [PRC] Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and meets either of the following criteria:

- 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.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Discovery of Sacred Lands and Human Remains

Health and Safety Code (Section 7050.5)

California Health and Safety Code Section 7050.5 identifies protocols if human remains are encountered unexpectedly. In such circumstance, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98.

Public Resources Code (Section 5097.9 to 5097.991)

Public Resources Code Sections 5097.9 to 5097.991 stipulate that whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, those persons believed to be most likely descended from the deceased Native American must be notified. The descendants may, with the permission of the owner of the land, or their authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation

within 24 hours of their notification by the NAHC. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Regional and Local

City of Indio

General Plan Update 2040

The City's most recent General Plan Update 2040 includes provisions for protecting tribal resources within the City. Chapter 8 Conservation Element includes guidance to enhance and protect cultural, paleontological, and historic resources. Three tribes are located within the vicinity of Indio. The Cabazon Tribal lands are located immediately east and southeast of the City. Augustine Tribal Lands and Torres-Martinez Tribal Lands are located to the south. Agua Caliente Tribal Lands are located to the northwest. The City engages with these tribes when planning development that may affect Native American cultural resources or sacred sites. The following goals and policies are relevant to the proposed Project:

Goal CE-8: Historic, Archaeological, and Paleontological Resources. Historic, archaeological, and paleontological resources preserved for their scientific, educational, aesthetic, and cultural values.

CE-8.4 Monitoring. Require monitoring on sites where grading has the potential to impact subsurface cultural and paleontological resources during excavation and construction activities.

CE-8.6 Coordination with local tribes. Periodically meet with representatives from local tribes to:

- Obtain input prior to making decisions, taking actions, or implementing programs/projects that may impact cultural resources;
- Discuss methods to preserve and protect highly sensitive cultural resources; and
- Ensure that there is agreement regarding the protocol to be followed when cultural resources are discovered.

ENVIRONMENTAL SETTING

Existing Conditions

Ethnographic Setting

The aboriginal group that occupied the northern Coachella Valley during the historical period was the Desert Cahuilla, who, along with the Mountain and Pass Cahuilla, constituted the ethnographic Cahuilla. The Cahuilla spoke a language of the Takic branch of Northern Uto-Aztecan, and the Desert Cahuilla spoke a distinct dialect of Cahuilla. There have been few archaeological studies of the historical-period Cahuilla, but testing at the former Mission Creek Indian Reservation, approximately 22.5 miles northwest of the Project Site, identified occupations stretching from the Late Prehistoric period into the early

twentieth century. Similarly, excavations at Tahquitz Canyon, 20.4 miles northwest of the Project Site, found a large village complex dating to between A.D. 1600 and 1870.

The Desert Cahuilla exploited a large amount of plant species with mesquite on the Coachella Valley floor as the primary food staple. The Desert Cahuilla also grew a few agricultural crops, namely corn, beans, and squash, which were probably obtained from native peoples along the Colorado River to the east. The Cahuilla also preferred a variety of animals including deer and mountain sheep to smaller animals such as rabbits and rodents. The Cahuilla population was originally as many as 3,000 people but declined rapidly after the smallpox and measles epidemic of 1863.

In 1876, the Agua Caliente Indian Reservation was founded by an Executive Order of President Ulysses S. Grant which was expanded in 1877 and 1907. The Reservation covers roughly 31,500 acres and consists of all even-numbered sections and all unsurveyed portions of Township 4 South, Ranges 4 and 5 East, and Township 5 South, Range 4 East, on the San Bernardino Meridian, with the exception of sections already given out by the United States (US) government. The odd-numbered sections had already been given to railroads as an incentive to develop cross-country rail lines, and as such, the Reservation appears as a checkerboard pattern on maps. In 1891, Congress passed the Mission Indian Relief Act, which authorized allotments of Reservation land to be given to individuals. The allotment elections were finally approved by the Secretary of the Interior as part of the Equalization Act in 1959, which finalized the individual Indian allotments and set aside certain lands for Agua Caliente Tribal use and cemeteries. The Agua Caliente Tribe has a land-exchange agreement with the U.S. Department of the Interior (USDI) Bureau of Land Management (BLM) and is actively acquiring other non-reservation land.

Coachella Valley Water District (CVWD) Stockpile

On August 9, 2022, a large stockpile of dirt from a neighboring CVWD project was to be placed within the Project Site. Following a grading plan that had been approved previously by the City, the stockpile was to be placed in an area that partially or completely covered sites that were discovered during the survey, on August 15, 2022. Because the stockpile location could not be moved or modified, SRI mobilized a team to initiate the testing phase of the Project and worked with representatives from the Morongo Band of Mission Indians, the Agua Caliente Band of Cahuilla Indians (ACBCI), and the Cabazon Band of Mission Indians to quickly and respectfully protect any materials that might be affected by the stockpile.

ENVIRONMENTAL IMPACT ANALYSIS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine whether a project would have a significant effect on the environment (Appendix G of the CEQA Guidelines). The potential for the Project to result in impacts associated with tribal and cultural resources is based on the following:

Threshold TCR-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 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)?

Threshold TCR-2: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Methodology

Archeological Records Search

Records searches and other archival research were conducted by SRI at the California Historical Resources Information System (CHRIS) Eastern Information Center (EIC), Department of Anthropology, University of California, Riverside, on August 25, 2021. The records search looked at all reports from archaeological work executed within a 1-mile radius of the Project Site.

Part of the records search and literature review involved contacting the Native American Heritage Commission (NAHC) for a list of traditional-use areas or sacred sites within the Project Site and a list of specific Native American groups or individuals who could provide additional information on cultural resources within the Project Site. The NAHC Sacred Lands File search did not indicate the presence of Native American Traditional Cultural Places within the Project Site. However, the NAHC provided a list of 18 contacts from 12 Tribes who could provide additional information on cultural resources within the Project Site (**Appendix L**).

Archeological Field Survey

A pedestrian survey of the Project Site was conducted from August 1 to 15, 2022, by a team of two archaeologists, with assistance from Tribal representatives from the Morongo Band of Mission Indians and the ACBCI. Although eventually the entire Project Site was surveyed, an approximately 20-acre area was not covered by the initial survey, because it is privately owned under separate ownership, and permission to access the area had not been granted. Permission to access this area was granted on August 30, 2022, and the testing and evaluation crew temporarily halted the excavations to complete the survey.

The entire Project Site was surveyed using transects and a Trimble Juno 3D handheld Global Positioning System (GPS) unit to track transects and mark the presence of surface finds, including isolated resources, features, and sites. Photographs were taken during the survey to record surface finds, topography,

features, sites, and modern disturbances. Diagnostic and unique artifacts were point-provenienced,² and because no artifacts were to be collected during the survey, any artifacts that were encountered were subjected to in-field analysis. Although most sites were small and could be recorded in their entirety, one site (SRI-15) was very large and contained hundreds of ceramic sherds among artifacts of several other types. For this site, ceramic artifacts were fully analyzed, and the densities of artifacts were used to extrapolate the general assemblage at the site. Nonceramic artifacts at this site were all point-provenienced and analyzed.

Consultation with Native American Tribes

On April 6th, 2022, the Lead Agency contacted 18 individuals representing 12 Native American tribal groups for local knowledge of tribal cultural resources in the Project Site:

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Morongo Band of Mission Indians
- Quechan Tribe of the Fort Yuma Reservation
- Ramona Band of Cahuilla
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians
- Torres-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

Three of the 12 tribes, the ACBCI, Cabazon Band of Mission Indians, and Morongo Band of Mission Indians, responded that the Project Site is within their ancestral territory.³ No other tribes have responded to date and requested consultation. Consultation letters and responses to the Native American tribal groups are in **Appendix L** to this EIR.

Agua Caliente Band of Cahuilla Indians

On April 29, 2022, a letter was received discussing the Project from ACBCI Tribal Historic Preservation Office (THPO) Operations Manager Ms. Lacy Padilla. Ms. Padilla indicated that the ACBCI THPO requests the following:

- a copy of the records search with associated survey reports and site records from the information center;
- copies of any cultural resource documentation (report and site records) generated in connection with this Project;
- the presence of an approved ACBCI Native American Cultural Resource Monitor(s) during any ground-disturbing activities (including archaeological testing and surveys), with the ability to halt destructive construction activities should buried cultural deposits be encountered. In such a case, the monitor would notify a Qualified Archaeologist (per the Secretary of the Interior's Standards and Guidelines)

2 Point Provenience is the location an artifact found in an excavation, within the grid of a site.

3 Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See **Appendix F**.

to investigate the material and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Office and the ACBCI; and

- to contact her office for a meeting.

On June 1, 2022, Ms. Padilla contacted SRI via email to report that she met with Ms. Ann Brierty, THPO for the Morongo Band of Mission Indians, to discuss monitoring of the survey and testing components of the Project. Additionally, Ms. Padilla reached out to Director of Cultural Affairs for the Cabazon Band of Mission Indians Mr. Michael Mirelez, who had requested to be involved in the decision-making process for the project. Both the Morongo Band of Mission Indians and the ACBCI reaffirmed their request to have a monitor on-site to concurrently monitor the survey and testing efforts as well as further ground disturbance. On June 9, 2022, SRI reached out to Ms. Padilla to plan a pre-field meeting with SRI, the ACBCI, and Meridian Consultants; the meeting was planned for Thursday, June 16, 2022. During the meeting, SRI provided the ACBCI and the Morongo Band of Mission Indians with all the information relevant to the upcoming field portion of the Project and planned to begin work immediately after contracts between the Tribes and Pulte Homes could be executed.

On August 4, 2022, SRI notified the ACBCI of the potential discovery of cremated human remains at a site during the survey. On August 5, 2022, SRI met on-site with Ms. Padilla and Mr. Andreas Heredia from the ACBCI, Ms. Brierty and Ms. Laura Chatterton from the Morongo Band of Mission Indians, Mr. Mirelez from the Cabazon Band of Mission Indians, and Dr. Deborah Gray and Corporal Stephanie Anderson from the Riverside County Coroner's Office, to attempt to identify the potential remains.

On August 10, 2022, SRI notified Ms. Padilla and Director of the ACBCI THPO Ms. Patricia Garcia-Plotkin of an agreement between the project landowner, Mr. Bernard Debonne, and the Coachella Valley Water District (CVWD) to place a substantial amount of material from a nearby CVWD project within the Project Site. Placement of the stockpile would cover several newly discovered prehistoric resources. Ms. Garcia-Plotkin asked that the activity cease and desist until she could confer with the City, the developer, and the CVWD. A conference call among Pulte Homes, Meridian Consultants, SRI, and the ACBCI took place on August 12, 2022, during which the ACBCI was made aware of the specifics of the stockpile. On August 15, 2022, a meeting among Pulte Homes, SRI, the ACBCI, and Sukut Construction was conducted within the Project Site to discuss the placement of the stockpile. During the meeting, it was agreed that an ACBCI monitor would be present to observe the stockpile, given the sensitive nature of the original location of the sediment.

Cabazon Band of Mission Indians

On May 4, 2022, SRI reached out to the Cabazon Band of Mission Indians by phone and was directed to Cultural Resources Coordinator Mr. Michael Mirelez. Mr. Mirelez indicated that the April 6, 2022, email with the Project information that was sent did not reach him, because he is taking over for the previous coordinator, and the email did not appear to have successfully transferred to his email address. Mr. Mirelez was previously employed as cultural resource coordinator for the Torres-Martinez Desert

Cahuilla Indians. A second email was submitted to Mr. Mirelez with a copy of the initial outreach letter on May 4, 2022.

On May 9, 2022, Mr. Mirelez indicated that he was in discussion with the ACBCI to determine the best course of action moving forward with the Project. On May 12, 2022, SRI received a follow-up phone call from Mr. Mirelez to discuss the upcoming Project. Mr. Mirelez indicated that the Cabazon Band of Mission Indians does not have staff for monitoring, but he wanted to make sure that a Tribal Monitor from the ACBCI or the Morongo Band of Mission Indians would be on-site to monitor the survey and ground disturbance. After assurances from SRI that we would work with these Tribes to ensure that a monitor was on-site, Mr. Mirelez also indicated that the Cabazon Band of Mission Indians would like to be informed of any discoveries and any time that activities are conducted on-site. Additionally, Mr. Mirelez stated he would like to be present on the first day of fieldwork. Following the phone call, Mr. Mirelez sent an email to SRI summarizing the phone call.

On August 4, 2022, SRI notified Mr. Mirelez of the potential discovery of cremated human remains at a site discovered during the survey. On August 5, 2022, SRI met on-site with Ms. Padilla and Mr. Andreas Heredia from the ACBCI, Ms. Brierty and Ms. Laura Chatterton from the Morongo Band of Mission Indians, Mr. Mirelez from the Cabazon Band of Mission Indians, and Dr. Deborah Gray and Corporal Stephanie Anderson from the Riverside County Coroner's Office, to attempt to identify the potential remains.

On August 10, 2022, SRI notified Mr. Mirelez of an agreement between the project landowner, Mr. Bernard Debonne, and the CVWD to place a substantial amount of material from a nearby CVWD project within the Project Site. Placement of the stockpile would cover several newly discovered prehistoric resources. Mr. Mirelez was kept apprised of the situation and was updated following the August 15, 2022, meeting among the ACBCI, Pulte Homes, and Sukut Construction.

Morongo Band of Mission Indians

On May 11, 2022, SRI received a letter from Morongo Band of Mission Indians THPO Ms. Ann Brierty regarding the project. The letter requested the following:

- a records search to be conducted at the appropriate CHRIS center with at least a 1.0-mile search radius from the Project boundary, with copies of the cultural resource documentation (reports and site records) generated through that search given to the Tribe so that these may be compared against the ACBCI records in order to begin productive consultation;
- Tribal participation during the pedestrian survey and testing, with a copy of the current Phase I study or other cultural assessments (including the cultural resource inventory) furnished to the Morongo Band of Mission Indians;
- shape files of the Project Site;
- a geotechnical report; and
- the currently proposed Project design and mass grading maps.

Because both the Morongo Band of Mission Indians and the ACBCI had expressed interest in monitoring, on May 16, 2022, SRI reached out to Ms. Brierty to inquire as to whether both Tribes could come to an agreement and decide who would be providing monitors. Ms. Brierty requested additional information (shape files, records-search information, maps, etc.) to get a better understanding of the Project. On May 31, 2022, Ms. Brierty contacted SRI via email to report that she had met with ACBCI THPO Operations Manager Ms. Lacey Padilla to discuss monitoring. Both the Morongo Band of Mission Indians and the ACBCI requested to have monitors on-site to concurrently monitor the survey and testing efforts as well as further ground disturbance. On June 9, 2022, SRI reached out to Ms. Brierty to plan a pre-field meeting among SRI, the ACBCI, and Meridian Consultants; the meeting occurred on June 16, 2022. During that meeting, SRI provided the ACBCI and the Morongo Band of Mission Indians all the information relevant to the upcoming field portion of the Project and planned to begin work immediately after contracts between the Tribes and Pulte Homes could be executed.

On August 4, 2022, SRI notified the Morongo Band of Mission Indians of the potential discovery of cremated human remains at a site discovered during the survey. On August 5, 2022, SRI met on-site with Ms. Padilla and Mr. Andreas Heredia from the ACBCI, Ms. Brierty and Ms. Laura Chatterton from the Morongo Band of Mission Indians, Mr. Mirelez from the Cabazon Band of Mission Indians, and Dr. Deborah Gray and Corporal Stephanie Anderson from the Riverside County Coroner's Office, to attempt to identify the potential remains.

On August 10, 2022, SRI notified Ms. Brierty and Ms. Chatterton of an agreement between the project landowner, Mr. Bernard Debonne, and the CVWD to place a substantial amount of material from a nearby CVWD project within the Project Site. Placement of the stockpile would cover several newly discovered prehistoric resources. Ms. Brierty and Ms. Chatterton were kept apprised of the situation and were updated following the August 15, 2022, meeting among the ACBCI, Pulte Homes, and Sukuts Construction.

Project Impacts

Threshold TCR-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 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)?**

Based on the literature review (i.e., cultural resource records search, paleontological records search, and archival research), one prehistoric archaeological site (CA-RIV-8908) consisting of an artifact scatter has been previously recorded within the current Project boundaries. Another 32 cultural resources had been recorded in the surrounding records-search area, which included the Project Site and a 1-mile radius around it. The prehistoric resources largely consisted of artifact scatters or habitation areas; 1 prehistoric site also includes elements of a rock alignment and a trail segment. At least 2 of the prehistoric sites

(CA-RIV-6896 and CA-RIV-12669) contained human cremations, and 1 site (CA-RIV-5492) contains burned-bone loci. The buried-site-sensitivity model (BSSM) for the Project Site revealed that entirety of it is sensitive for buried archaeological resources. The archaeological field survey of the Project Site identified 11 new sites and 30 isolated resources. Of the 11 identified sites, SRI-15 is the only site to be recommended for listing to the CRHR.

Based on soil-series descriptions, the sensitive soils are approximately 5 feet in thickness and have potential to contain buried archaeological resources to their bases. However, it cannot be ruled out that early prehistoric sites could be present at greater depths in unknown buried soils. As for paleontological resources, based on the paleontological sensitivity study, it can be assumed that the upper 5 feet of the sediments underlying the Project Site should be assigned low paleontological resource sensitivity, due to past agricultural activities within the Project Site, and any deposits discovered at greater than 5 feet in depth below grade should be assigned high paleontological resource sensitivity.

Therefore, impacts to the identified sites and sensitive soils during Project construction and operation would be potentially significant. Mitigation Measures (MM) CUL-1 through MM CUL-3 would be implemented to reduce the significance of Project impacts to less than significant. Prior to ground disturbing activities, MM CUL-1 would require consultation with Tribal entities concerning SRI-15, so that appropriate measures are taken to adequately and respectfully mitigate any adverse effects that the development may have on the site. Should archaeological resources be encountered during subsurface excavation activities, implementation of MM CUL-2 requires all activities near the discovery to cease, and a qualified archaeologist should be brought in to examine the discovery. Finally, MM CUL-3 would require all sediment greater than 5 feet (1.5 m) below grade be monitored by a qualified paleontological monitor. With implementation of MM CUL-1 through MM CUL-3, impacts will be less than significant.

Threshold TCR-2: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

According to NAHC's Sacred Lands Inventory search, the Project Site has not been cataloged as a Native American sacred or cultural place of special religious or social significance, and the NAHC does not have knowledge of Native American cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) at and within the immediate vicinity of the Project Site. Separate from the SLF consultation with the NAHC, 18 individuals representing 12 Native American tribal groups in southern California were also contacted to request for local knowledge of tribal cultural resources on

September 6, 2022.⁴ Three of the 12 tribes— the Agua Caliente Band of Cahuilla Indians (ACBCI), Cabazon Band of Mission Indians, and Morongo Band of Mission Indians, responded that the Project Site is within their ancestral territory.⁵ Both the Morongo Band of Mission Indians and the ACBCI requested to have monitors on-site to concurrently monitor the survey and testing efforts as well as further ground disturbance. The Cabazon Band of Mission Indians did not have monitoring specialists on staff, but also requested that monitors be present during the on-site survey.

In addition, in accordance with the requirements of AB 52 and SB 1, the City notified tribal representatives of the opportunity to consult with the City regarding the potential for the Project Site to contain TCRs that might be affected by the Project. The ACBCI requested formal consultation.⁶

After the on-site survey was conducted, the City provided the Cultural Resources Study to the ACBCI, Cabazon Band of Mission Indians, and Morongo Band of Mission Indians for review.

Because project grading and excavation could extend 20 feet below ground surface, the Project has the potential to encounter native soils and impact objects and features associated with the prehistoric occupation of local tribes, and impacts are potentially significant, unless mitigated. The proposed Project would require **MM CUL-1** through **MM CUL-3**, which requires consultation with Tribal entities concerning the site prior to mass grading; an archaeological and paleontological monitor to observe all ground disturbing activities when either an archaeological resource is present or when excavation goes below 5 feet; and in accordance with the California Health and Safety Code (HSC; Section 7050.5[b]), the Riverside County Coroner's Office must be contacted if human remains are identified, and the NAHC will be notified if the remains are identified as Native American. Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce potentially significant impacts to tribal cultural resources determined by criteria provided PRC 5024.1(c) to less than significant.

CUMULATIVE IMPACTS

The potential for the Project to result in a cumulatively considerable contribution to a significant cumulative impact to tribal cultural resources was analyzed in conjunction with the City's General Plan and General Plan EIR. The City's General Plan EIR states that all future development within the City would be required to comply with applicable federal and state laws and regulations that concern the preservation of cultural resources, including the California Public Resources Code, the National Historic Preservation Act, and CEQA.⁷ As discussed, construction of the Project may disturb native soils containing

⁴ Kevin Synder. Director of Community Development for the City of Indio. Correspondence for AB 52/SB 18 Notification of Consultation Opportunity. September 6, 2022. See **Appendix L.2**.

⁵ Patrick B. Stanton, Felicia V. De Peña, and Joseph El-Adli. Statistical Research, Inc. (SRI). *Desert Retreat Specific Plan Cultural Resource and Paleontological Study, Indio, Riverside County, California*. December 2022. See **Appendix F**.

⁶ Correspondence from Lacy Padilla. Operations Manager for the ACBCI Tribal Historic Preservation Office. August 23, 2022. See **Appendix L.3**.

⁷ City of Indio. *City of Indio General Plan EIR*. "Chapter 4.5: Cultural Resources and Tribal Cultural Resources." Page 4.5-32. Available at: <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed November 2022.

prehistoric objects and features that may be determined to be a tribal cultural resource, and the proposed Project would require **MM CUL-1** through **MM CUL-3** to reduce project level impacts to less than significant. Future development projects in the City would also be required to mitigate potential inadvertent discoveries of subsurface resources, including tribal cultural resources. Furthermore, the Project's potential impacts to tribal cultural resources would be less than significant with the implementation of the recommended mitigation measures. As the Project's impacts would be considered less than significant with mitigation measures included, the Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

The following mitigation measures would further reduce cultural resource impacts during construction of the Project:

MM CUL-1: SRI 15 Data Recovery. Prior to the implementation of mass grading, clearing, or grubbing, given the subsurface component of SRI 15 and the potential for human remains, consultation with Tribal entities concerning the Site should occur so that appropriate measures are taken to adequately and respectfully mitigate any adverse effects that the development may have on the Site.

Because implementation of the Project as proposed would significantly impact the site, including the planned development of the SRI-15 area, avoidance of the SRI 15 site is not feasible. Therefore, an archaeological data recovery plan shall be drafted and implemented for the site in a manner consistent with established professional archaeological standards and in consultation with the Agua Caliente, Morongo, and Cabazon Tribes. Data recovery efforts will be led by a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology and monitored by tribal representatives. This archaeological data recovery plan will include the professional qualifications required of key staff and detail excavation methods as well as methods used to analyze recovered artifacts and samples. Implementation of the data recovery plan will reduce to an insignificant level potential Project effects on SRI 15.

MM CUL-2: Archaeological Monitoring. Prior to the start of Project ground disturbance, including demolition and vegetation removal, a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be retained to prepare and implement a written Cultural Resource Monitoring and Treatment Plan (CRMTP) that is consistent with established professional archaeological standards and subject to the approval of the City. Implementation of the CRMTP will reduce to an insignificant level potential Project effects on known archaeological resources as well as on unanticipated archaeological resources that may be unearthed during construction, which would include potential prehistoric and historical-period discoveries. The CRMTP shall detail the pertinent historic context and anticipated

research themes within which cultural resources in the Project Site can be treated and evaluated. The plan shall include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Project site, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements. The CRMTP shall include detailed methods to be taken during stop work situations, assessment of preservation in place or recovery of potential cultural deposits, and the process for evaluating resources for CRHR eligibility. The CRMTP shall also include a section describing the protocol in the event that unanticipated human remains are discovered during Project construction.

MM CUL-3: **Human Remains.** If human remains are identified during construction, all construction activities near the remains must cease immediately, and the area must be secured. The Riverside County Coroner's Office must be contacted immediately, in accordance with the California *Health and Safety Code* (HSC) Section 7050.5(b). If the determination is made by the coroner that the remains are those of a Native American, HSC 7050.5(c) requires that the coroner contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. The NAHC will then select a Most Likely Descendant and will coordinate with that individual regarding the treatment and final disposition (repatriation) of the human remains, according to the provisions of PRC 5097.98 and any other legal/regulatory requirements. Any encountered human remains will be treated with the proper dignity and respect.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of **MM CUL-1** through **MM CUL-3**, impacts associated with tribal cultural resources would be less than significant. Therefore, no significant unavoidable adverse impacts relating to tribal cultural resources have been identified. Cumulative impacts would also result in less than significant impacts to tribal cultural resources.

5.16 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential impacts of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) on water service, sewer service, dry utilities, and solid waste. The information provided in this section is based on the Coachella Valley Water District (CVWD), the Riverside County Waste Management Department (RCWMD), Burrtec Waste Industries (Burrtec), Imperial Irrigation District (IID), the Southern California Gas Company (SoCalGas), Charter Communications (Spectrum), and Frontier Communications (Frontier). Each of the following subsections includes an introduction, followed by discussions of existing conditions, regulatory framework, methodology, environmental impacts, cumulative impacts, Mitigation Measures, and level of significance after mitigation.

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential impact of the proposed Desert Retreat Specific Plan Project (“Specific Plan Project” or “Project”) on water services within the Coachella Valley, the City of Indio (City), and surrounding communities. More specifically, this section evaluates impacts associated with the Project that may potentially affect the regional and local water supply and water service system. Various federal, State of California (State), regional, and local programs and regulations related to anticipated water supply and demand impacts are also discussed in this section. Information from the following study of the Project is incorporated into this section:

- *Water Supply Assessment and Water Supply Verification for the Proposed Desert Retreat*, MSA Consulting, Inc., November 2022. See **Appendix N**.

REGULATORY SETTING

Federal

Clean Water Act and Safe Drinking Water Act

The Clean Water Act of 1972 (CWA) was enacted to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters by regulating the discharge of pollutants to waters of the US from point sources for the propagation of fish and wildlife. Section 208 of the CWA and the requirements of the Code of Federal Regulations require local water management plans. Preparation of these water management plans is delegated to individual states by the United States Environmental Protection Agency (USEPA), which is charged with implementing the CWA.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States regulated under this program, including fill for development and mining projects. “Waters of the United States” are defined in US Army Corps of Engineers (USACE) regulations as navigable waters that are navigable in the traditional sense and includes adjacent wetlands and tributaries to navigable waters of the US and other waters, the degradation or destruction of which could affect interstate or foreign commerce. Proposed activities are regulated through a permit process, reviewed by the USACE, which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines and regulations promulgated by the USEPA.

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet its water quality standards. The water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA.

State

California Water Boards

California's Water Boards consist of the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). The mission of the Water Boards is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use for the benefit of present and future generations. Together they are authorized to implement the federal Clean Water Act in California. The Project Site is located in Region 7, the Colorado River Region.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act established the principal State program for water quality control. The Porter-Cologne Water Quality Control Act also authorized the SWRCB to implement the provisions of the federal Clean Water Act. The act divided the State into nine RWQCB areas. Each RWQCB implements and enforces provisions of the Porter-Cologne Act and the CWA subject to policy guidance and review by the SWRCB. The Porter-Cologne Act requires each RWQCB to develop a Basin Plan for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory programs.

Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMPA) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 AFY of water, to prepare an UWMP. The intent of an UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. A UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every five years. In recognition of the State requirements, CVWD completed an update of the UWMP in June 2021.

Water Supply Assessments

Requirements for the preparation of a water supply assessment (WSA) are set forth in Senate Bill 610 (SB 610), which was enacted in 2001 and became effective January 1, 2002. SB 610 amended Section 21151.9 of the Public Resources Code. It requires cities and counties and other CEQA lead agencies to request specific information on water supplies from the Public Water System (PWS) that would serve any project that is subject to CEQA and is defined as a "Project" in Water Code Section 10912. This information is to be incorporated into the environmental review documents prepared pursuant to CEQA.

The Water Code requires a WSA be prepared for any project that consists of one or more of the following:

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

5.16.1 Water Service and Supply

- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified above.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.
- For public water systems with fewer than 5,000 service connections, a project that meets the following criteria: any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

The proposed development is a "Project" as defined by Water Code Section 10912 and requires a WSA because it proposes over 500 housing units. Effective January 1, 2017, SB 1262 amends Water Code Section 10910, the WSA statute, to require that Sustainable Groundwater Management Act (SGMA)-related information be included in a WSA if a water supply for a proposed project includes groundwater from a basin that is not adjudicated and is designated medium or high-priority. The Desert Retreat Specific Plan will use groundwater from the Whitewater/Indio Subbasin, which is designated medium priority by DWR and is not adjudicated.

Water Supply Verification

Senate Bill 221 (SB 221) was enacted in 2001 and became effective as of January 1, 2002. SB 221 amends Section 11010 of the Business and Professional Code, and Sections 66455.3 and 66473.7 and Section 65867.5 of the Government Code. SB 221 establishes the relationship between the WSA prepared for a project and the project approval under the Subdivision Map Act. Pursuant to California Government Code Section 65865.5 and 66473.7, the approval of a development agreement or tentative map that includes a subdivision for a project including more than 500 units shall be conditioned to obtain a Water Supply Verification (WSV).

The purpose of the WSV is to provide the legislative body of a city, county or the designated advisory agency with written verification from the applicable public water purveyor that a sufficient water supply is available or, in addition, a specified finding is made by the local agency that sufficient water supplies are, or will be, available prior to completion of the project. Therefore, a WSV is required since this Project has over 500 housing units and is a "Subdivision" as defined by Government Code Section 66473.7.

Regional and Local

2020 Urban Water Management Plan

CVWD prepared the 2020 Urban Water Management Plan (UWMP) in 2021 in response to the requirements of the Urban Water Management Planning Act, California Water Codes Sections 10610 through 10656. The Urban Water Management Planning Act was established in 1983 and most recently updated by Senate Bill x7-7 (SBx7-7), which requires a 20 percent reduction in per-capita water use by 2020. This report has been prepared to comply with the requirements of the UWMP Act and is based on the recommended organization in the California Department of Water Resources (DWR). CVWD's 2020 UWMP supports long-term water resources planning and ensures adequate water supplies are available to meet existing and future urban water demands. The UWMP accomplishes water supply planning over a 25-year period in five-year increments, identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years, and implements conservation and efficient use of urban water supplies.

CVWD currently implements consumption reduction methods in each respective water shortage contingency stage. The primary method for implementing water use reduction is through the water budget-based tiered rates and structures and drought penalty charges for use in excess of the required reductions.

Landscape Water Conservation Ordinance No. 1302.4

On February 12, 2009, the Board of Directors of the CVWD passed and adopted Ordinance No. 1302.4 due to due to ongoing drought conditions, establishing updated landscape and irrigation system design criteria. In accordance with Ordinance 1302.4 and as codified in Title 3, Water, Chapter 3.15 Landscape and Irrigation System Design Criteria of the CVWD District Code, the provisions for new or rehabilitated landscapes apply to all new and rehabilitated landscaping for private, public, recreational, commercial and governmental development projects that require a permit and developer-installed landscaping in single-family tracts, five or more infill lots and multifamily projects.

The purpose of the landscape and irrigation system design criteria is to conserve water by establishing effective water efficient landscape requirements for newly installed and rehabilitated landscapes. It is also the intent of these criteria to implement the requirements of the State of California Water Conservation in Landscaping Act (Government Code Section 65591, et seq). It is the intent of CVWD to promote water conservation through climate appropriate plant material, efficient irrigation systems and to create a "Lush and Efficient" landscape theme through enhancing and improving the physical and natural environment.

As outlined in Ordinance 1302.4, project applicants are required to submit a landscape documentation package, which is required to include a water conservation concept statement; calculation of the maximum applied water allowance; calculation of the estimated applied water use; calculation of the estimated total water use; a landscape design plan; an irrigation design plan; and grading design plan.

City of Indio Municipal Code

The City of Indio has complied with AB 1881 and with CVWD Ordinance No. 1302.1 with its Landscape and Water Conservation and Water Efficient Landscape Development Standards ordinances in Chapter 54 (Water) of the City of Indio Municipal Code (§ 54.064.1, § 54.064.2). This section of the City's Municipal Code requires project applicants to submit a landscape documentation package, which must comply with the provisions of the City of Indio/Indio Water Authority's Landscape Irrigation System Design Criteria or, where service is provided by another water purveyor, the relevant landscape and irrigation system design criteria adopted by that water purveyor. Subsequent verification of compliance of the landscape installation with the approved plans must also be obtained through a certification of completion issued by the Indio Water Authority (or other water purveyor) in conjunction with a certificate of use and occupancy or permit process, which must be filed with the Development Services Department.

ENVIRONMENTAL SETTING

Existing Conditions

Public Water Supply

Coachella Valley Water District (CVWD) is the Public Water System (PWS) for the area in which the Project is located. CVWD provides service for domestic water, irrigation water, sanitation sewer collection, wastewater reclamation and recycling, imported water, stormwater management, agricultural drainage and flood control and water conservation. Some of the services provided by CVWD include the following:

- CVWD provides domestic water for approximately 107,000 homes and business in the Coachella Valley. The distribution system includes 60 reservoirs, 1,993 miles of pipelines and 96 active wells.
- CVWD began recharging the groundwater basin in the Upper Valley in 1919, first with local water and later with imported water.
- Sanitation Services were provided by CVWD in 1968, when it acquired the Palm Desert Country Club Water Reclamation Plant and domestic water system. Currently there are five water reclamation plants (WRP) providing wastewater treatment as well as recycled water supply in the CVWD service area.

The Coachella Valley is dependent on groundwater as a source of supply. The demand for groundwater has historically exceeded the natural recharge of the groundwater basin. Therefore, imported water is used to recharge the acquirer and reduce groundwater overdraft.

Primary Water Source

The primary source of water supply in the Valley, and for this project, is the Coachella Valley Groundwater Basin. The groundwater basin is recharged by other sources of water, such as Colorado River Water, reclaimed water, SWP supplies, and potentially desalinated brackish groundwater/agricultural drain water. Colorado River water is also available for potential domestic use if treated. Colorado River water via the Coachella Branch of the All-American Canal supplies water for irrigation of the eastern valley. The Mid-Valley Pipeline Project, when completed, will deliver recycled water and Colorado River Water

via the Coachella Canal irrigation in the Whitewater River (Indio) Subbasin. See **Section 5.8: Hydrology and Water Quality** for additional information.

Groundwater

Since the early part of the 20th century, the Coachella Valley has been dependent primarily on groundwater as a source of domestic water supply. Groundwater is also used to supply water for crop irrigation, fish farms, duck clubs, golf courses, greenhouses, and industrial uses in the Coachella Valley. California Water Code Section 10910 requires that cities and counties conduct a WSA for projects that are subject to CEQA. If the water supply for the proposed project includes groundwater, the WSA is required to include additional information such as a description of the basin, the rights of the PWS to use the basin, the overdraft status of the basin, any past or planned overdraft mitigation efforts, historical use of the basin by the PWS, projected use of the basin by the project, and a sufficiency analysis of the basin.

Description of the Aquifer

Groundwater is the principal source of municipal water supply in the Coachella Valley. CVWD serves domestic water to most of the developed portions of the Coachella Valley and along both sides of the Salton Sea in Imperial Valley. CVWD obtains water from both the upper and lower Whitewater River subbasins and the Mission Creek subbasin. A common groundwater source, the Whitewater River subbasin, is shared by CVWD, Desert Water Agency, the cities of Indio and Coachella, Myoma Dunes Water Company, and numerous private groundwater users.

The Coachella Valley Groundwater Basin, as described by the California Department of Water Resources (DWR) is bound on the north and east by non-water bearing crystalline rocks of the San Bernardino and Little San Bernardino Mountains, and on the south and west by the crystalline rocks of the Santa Rosa and San Jacinto Mountains. At the west end of the San Gorgonio Pass, between Beaumont and Banning, the basin boundary is defined by a surface drainage divide separating the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana drainage area.

The Aquifer underlies the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. The Subbasins present in the Valley are Mission Creek, Desert Hot Springs, and Whitewater River (also known as Indio). The Whitewater Subbasin includes five subareas: Palm Springs, Garnet Hill, Thermal, Thousand Palms and Oasis. The Palm Springs subarea is in the forebay or main area of recharge to the subbasin, and the Thermal Subarea comprises the pressure or confined area within the basin. The other three subareas are peripheral areas having unconfined groundwater conditions. The subbasins with their groundwater storage reservoirs are defined without regard to water quantity or quality. They delineate areas underlain by formations, which readily yield the stored water through water wells and offer natural reservoirs for the regulation of water supplies.

The Whitewater River Subbasin comprises the major portion of the floor of the Coachella Valley and encompasses approximately 400 square miles. The Subbasin is located northwest of the Salton Sea and receives low precipitation, averaging about 6 inches per year, and a wide range of temperatures. From a management perspective, the Whitewater River Subbasin is commonly divided into west and east Areas of Benefit (AOBs), with the dividing line extending from Point Happy in La Quinta to the northeast and terminating at the San Andreas Fault and the Indio Hills at Jefferson Street. The West Whitewater River Subbasin AOB is defined generally as that portion of the Thermal Subarea west of this line and includes the Palm Springs and Thousand Palms Subareas. The Whitewater River Subbasin is recharged naturally with runoff from the San Jacinto, Santa Rosa, and San Bernardino Mountains.

Groundwater Storage

As shown in **Table 5.16.1-1: Groundwater Storage Capacity of the Coachella Valley Groundwater Basin**, DWR estimated in 1964 that the Coachella Valley Groundwater Basin contained a total of approximately 39.2 million acre-feet (AF) of water in the first 1,000 feet below the ground surface, much of which originated from runoff from adjacent mountains. However, the amount of water in the Aquifer has decreased over the years due to the groundwater pumping to serve urban, rural, and agricultural development in the Coachella Valley, which has withdrawn water from the Aquifer at a rate faster than its natural rate of recharge. DWR has calculated the storage capacity of the Whitewater River Subbasin to be 29.8 million AF.

TABLE 5.16.1-1 GROUNDWATER STORAGE CAPACITY OF THE COACHELLA VALLEY GROUNDWATER BASIN	
Area	Storage (acre-feet)
San Gorgonio Pass Subbasin	2,700,000
Mission Creek Subbasin	2,600,000
Desert Hot Springs Subbasin	4,100,000
<i>Subtotal</i>	10,400,000
Whitewater River Subbasin	
Palm Springs Subarea	4,600,000
Thousand Palms Subarea	1,800,000
Oasis Subarea	3,000,000
Garnet Hill Subbasin	1,000,000
Thermal Subarea	19,400,000
<i>Subtotal Whitewater River Subbasin</i>	29,800,000
Total of all Subbasins	39,200,000

Source: *Appendix N, Water Supply Assessment and Water Supply Verification.*

Groundwater Levels

The rate of groundwater level decline has increased since the early 1980s due to increased urbanization and increased groundwater use by domestic water purveyors, farmers, golf courses and public parks. Although water levels have been declining throughout most of the subbasins since 1945, water levels in

5.16.1 Water Service and Supply

the southeastern portion of the Coachella Valley had risen until the early 1980s because of the use of imported water from the Coachella Branch of the All-American Canal and the resulting decreased pumping in that area. The rate of groundwater level decline increased from the early 1980s until about 2010 due to increased urbanization and increased domestic water purveyors, local farmers, golf courses, and fish farms. Since 2010, groundwater levels in the southeastern portion of the Coachella Valley have risen as a result of reduced pumping in the eastern Coachella Valley combined with recharge of Colorado River water at the Thomas E. Levy Groundwater Replenishment Facility.

The historic declining water table in the lower portion of the Whitewater River Subbasin led to the determination that a management program is required to stabilize water levels and prevent other adverse effects such as water quality degradation and land subsidence. CVWD's Lower Whitewater River Subbasin Groundwater Replenishment program is reducing declining water levels in this subbasin. Groundwater Recharge in the Lower Whitewater River Subbasin began in 1997, and the benefits of recharge can be seen in recent groundwater level measurements.

As presented in the 2022-2023 Engineer's Report on Water Supply and Replenishment Assessment for the Coachella Valley Water District, groundwater production within the East Whitewater/Indio Subbasin Area of Benefit was estimated to be 168,300 AF during 1999. The reported production for 2014 was 123,465 AF and 113,706 AF for 2015.

Water surface elevations in the western area of the Coachella Valley are highest at the northwest end of the subbasin, illustrating the regional groundwater flow is from the northwest to the southeast in the center of the Coachella Valley.

Groundwater Production

CVWD divides the subbasins within its service area into Areas of Benefit (AOBs). As shown in **Table 5.16.1-2: Groundwater Production within the East Whitewater River Subbasin Area of Benefit**, total groundwater production within the East Whitewater River AOB was estimated to be 119,700 AF in 2021. Annual water production within the East Whitewater River Subbasin AOB (groundwater extractions plus surface water diversions) for all producers, has averaged 117,768 AFY for the past 6 years (2016-2021), down from the 128,561 AFY average from the previous 5-year period (2010-2015). Based on production records, approximately 22 to 25 percent of annual water production within the Whitewater River Subbasin is allocable to DWA, and the remaining 75 to 78 percent is allocable to CVWD.

**TABLE 5.16.1-2
GROUNDWATER PRODUCTION WITHIN THE EAST WHITEWATER RIVER SUBBASIN AREA OF BENEFIT**

Year	Acre-Feet
1999	168,300
2000	166,700
2001	199,800
2002	172,300
2003	172,000
2004	172,000
2005	172,000
2006	172,000
2007	172,000
2008	172,000
2009	160,000
2010	150,000
2011	145,000
2012	120,000
2013	119,194
2014	123,465
2015	113,706
2016*	113,333
2017	117,444
2018	120,935
2019	117,269
2020	117,925
2021	119,700

* The 2016 production amount was updated with data reported after publication of the 2017-2018 Engineer's Report.

Source: 2022-2023 Engineer's Report on Water Supply and Replenishment Assessment, Coachella Valley Water District (April 2022). Table 5-1.

Groundwater Demand

Groundwater is the principal source of potable supply in the Coachella Valley and CVWD obtains groundwater from both the Indio and Mission Creek Subbasins of the Coachella Valley Groundwater Basin. CVWD's groundwater demand in the Coachella Valley Groundwater Basin. CVWD's groundwater demand in the Coachella Valley Groundwater Basin for 2017 through 2021 is shown in **Table 5.16.1-3: CVWD Groundwater Demand in the Coachella Valley Groundwater Basin.**

TABLE 5.16.1-3:
CVWD GROUNDWATER DEMAND IN THE COACHELLA VALLEY GROUNDWATER BASIN

Groundwater Production (AF)	2017	2018	2019	2020	2021
Indio Subbasin	93,798	96,176	93,130	96,661	98,484
Mission Creek Subbasin	2,917	2,786	2,642	3,182	3,062
Total	96,715	98,962	95,772	99,843	101,546

Source: Water Supply Assessment and Verification (WSA WSV) for the Proposed Desert Retreat, November 2022.

Groundwater Sustainability

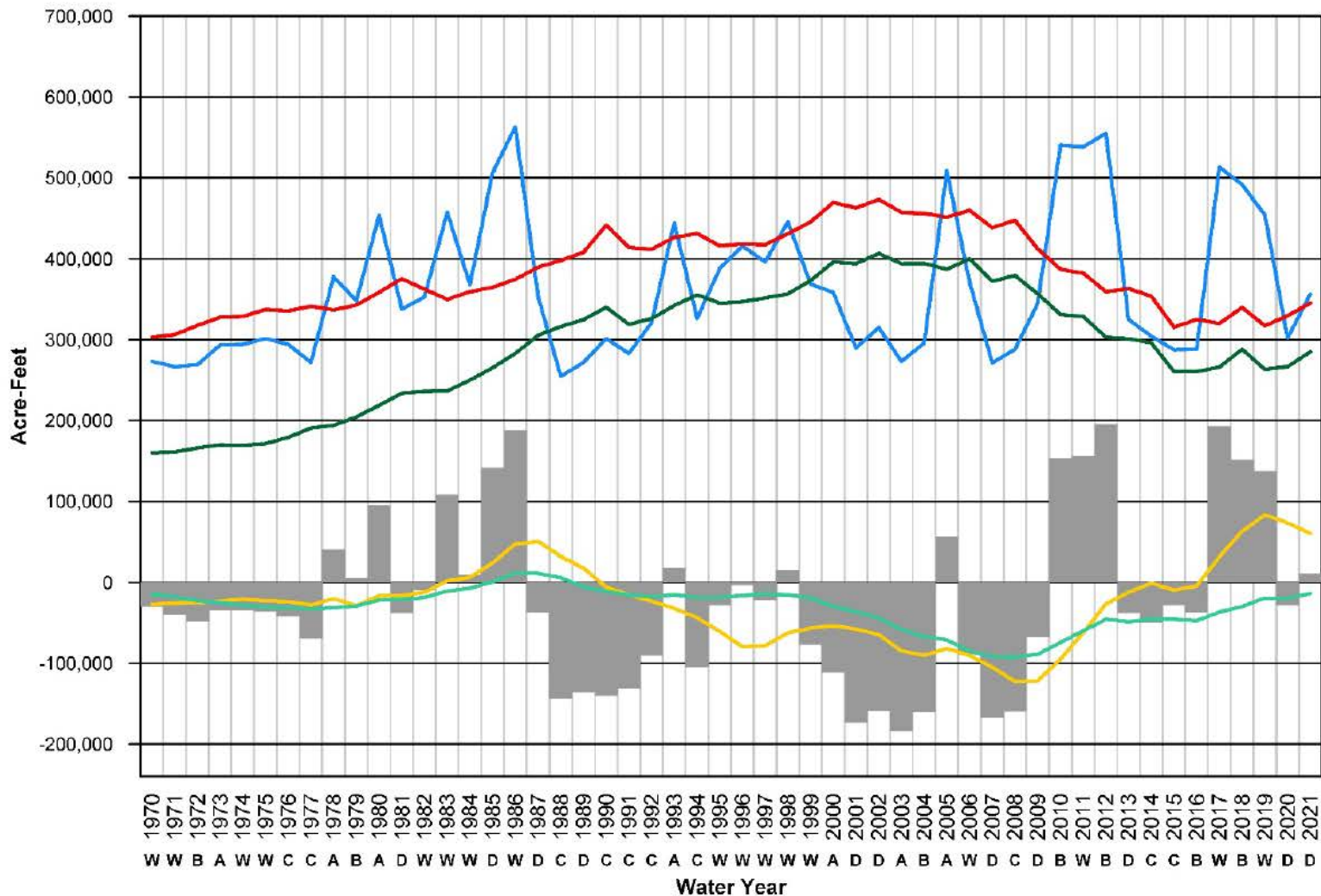
Long-term sustainability is assessed based on changes in groundwater storage over a historical period on the order of ten to twenty years that includes wet and dry periods. **Figure 5.16.1-1: Historical Annual Change in Groundwater Storage in the Indio Subbasin** shows the historical annual change in groundwater storage from 1970 through Water Year (WY) 2020-2021 in the Indio Subbasin. The figure also shows annual inflows, outflows, groundwater production, and 10-year and 20-year running-average change in groundwater storage. During periods of high artificial recharge, the change in storage tends to be positive. In dry years or periods of high groundwater pumping, the change in storage is often negative.

As shown in the **Figure 5.16.1-1**, annual inflows to the Indio Subbasin are highly variable with years of high inflows corresponding to wet years when SWP delivery volumes were greater. Higher inflows in the mid-1980s occurred when the Metropolitan Water District of Southern California (MWD) commenced large-scale advanced water deliveries to the Indio Subbasin. After an extended period of decline, both the 10-year and 20-year running-average change in storage have shown upward trends since 2009.

As shown in **Figure 5.16.1-2: 12-Year Change in Groundwater Elevation from Water Year 2008-2009 through Water Year 2020-2021 in the Indio Subbasin**, groundwater levels have increased significantly in the Indio Subbasin from WY 2008-2009 to WY 2020-2021. The 2022 Indio Subbasin Alternative Plan Update uses 2009 water levels as a metric of sustainability because historical low groundwater levels occurred in the years around 2009 throughout most of the Indio Subbasin. The Indio Subbasin shows a long-term positive trend in sustainability resulting from implementation of the Alternative Plan.

The Indio Subbasin Alternative Plan Update recognizes that Colorado River supplies face a number of challenges to long-term reliability including the extended Colorado River Basin drought and agreements that require water to be shared during extended periods of drought, to protect endangered species and habitat protection, and as a result of climate change.

The Alternative Plan Update analyzes several scenarios over the 50-year period required by SGMA to address potential future water supply conditions, changes in land use, and implementation of water management projects including source substitution and new water supply projects. Climate change conditions were considered in all of these scenarios.




Note:
 Values shown prior to 2017 are on a calendar year basis.
 Letters below the years indicate Sacramento Valley Water Year Type:
 W = Wet
 A = Above Normal
 B = Below Normal
 D = Dry
 C = Critically Dry

— Annual Inflows
— Annual Outflows
— Groundwater Production
— 10-year Average Change in Storage
— 20-year Average Change in Storage
 Annual Change in Storage

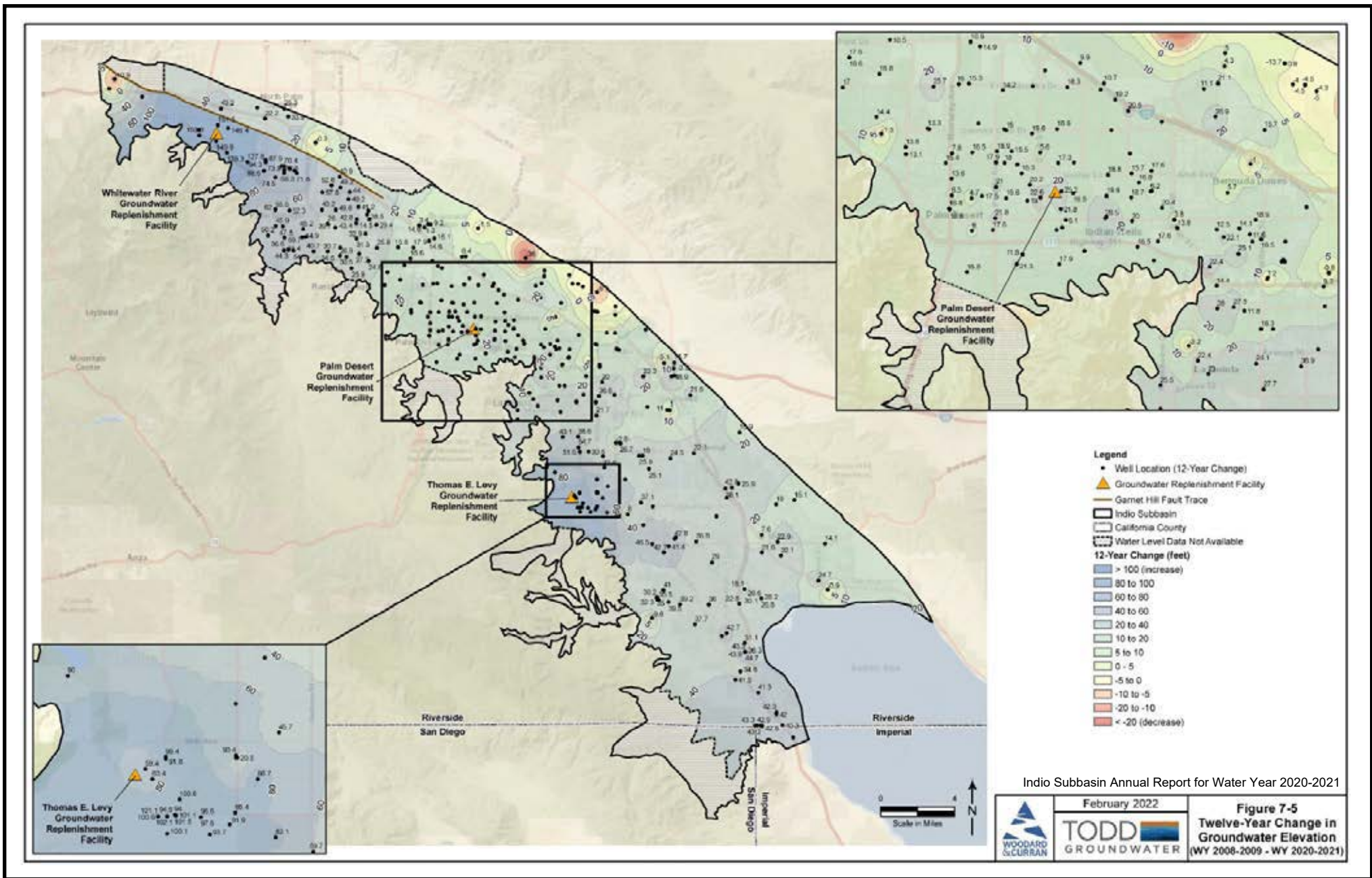
Indio Subbasin Annual Report for Water Year 2020-2021

SOURCE: MSA Consulting - 2022

FIGURE 5.16.1-1



Historical Annual Change in Groundwater Storage in the Indio Subbasin



SOURCE: MSA Consulting - 2022

FIGURE 5.16.1-2

12-Year Change in Groundwater Elevation from Water Year 2008-2009 through Water Year 2020-2021 in the Indio Subbasin

Future climate change was simulated similar to the observed conditions over the last 25 years, a period marked with recurring drought and below average rainfall. While all scenarios assume 45 percent reliability of SWP supplies, the climate change scenarios assume an additional 1.5 percent reduction in SWP reliability by year 2045.

To account for the potential effects of future climate change, the projections assume CVWD will contribute water to California's Lower Basin Drought Contingency Plan allotment for Colorado River water. Under this plan, CVWD is obligated to contribute approximately 14,000 to 24,500 AFY, which equals about 7 percent of California's total contribution, to prevent Lake Mead water levels reaching critically low levels.

This Alternative Plan Update considers two Colorado River delivery scenarios, with one of these scenarios considering climate change conditions, including CVWD's portion of California's Lower Basin DCP contribution increasing from 14,500 AFY to 24,500 AFY.

The modeling of these scenarios shows that implementation of water management projects that are already planned and CVWD's ongoing management actions can maintain the water balance in the Indio Subbasin, even with the expected effects of future climate change in the Colorado River Basin and on the SWP.

Status of the Aquifer

Groundwater overdraft is manifested not only as a prolonged decline in groundwater storage but also through secondary adverse effects, including decreased well yields, increased energy costs, water quality degradation, and land subsidence. Continued groundwater replenishment will be necessary to eliminate or reduce overdraft in the future. The Coachella Valley Groundwater Basin (and its subbasins) has been historically in a state of overdraft condition. With maximum Table A allocations, recharge in the Whitewater River Subbasin would offset the current annual overdraft, although overdraft in future years is unpredictable, due to the difficulty of projecting long-term growth and the reliability of SWP supplies.

Direct groundwater replenishment within the West Whitewater River Subbasin AOB began in 1973 and has so far replenished the Western portion of the Whitewater River Subbasin with a cumulative total of 3,318,182 AF of imported water. Imported water in the amount of 385,994 AF was delivered to the Whitewater River GRF during 2017.

CVWD and DWA request their full amount of Table A amounts each year, for a combined total of 194,100 AF, and continue to exchange their SWP for Colorado River Water. Given that water demand and groundwater extraction are expected to increase in the future, the current groundwater replenishment program will need to be continued and increased in the future to eliminate overdraft. Cumulative replenishment water deliveries between the Mission Creek Subbasin and Whitewater River Subbasin AOBs will be balances as determined by CVWD, DWA, and MSWD Management Committee, but no later than 20 years from December 7, 2004.

Over the past 10 years, the basin has been balanced; however, during the past 20 years, about 45,000 AFY of storage has been lost to overdraft. Projected water requirements through 2040 for the Whitewater

River Subbasin are based on the water balance model utilized in the 2010 CVWMP Update and the 2016 Status Report for the 2010 CVWMP Update. The project requirements are largely offset by potable supplies; however, on a long-term basis, water requirements are likely to continue to place demands on groundwater storage.

Groundwater Replenishment

Replenishment Facilities

The Thomas E. Levy Groundwater Replenishment Facility went online in June 2009. It is located just south of Lake Cahuilla at Dike 4, a major flood control dike, near Avenue 62 and Madison Street in La Quinta. This location is ideally suited for large-scale replenishment, given its proximity to Lake Cahuilla and the relative absence of aquitards that would retard infiltration. CVWD conducted a study in 2017 to evaluate the feasibility of increasing groundwater replenishment with Colorado River water at the TEL-GRF. The study recommended additional monitoring to better characterize hydrogeological conditions, and six monitoring wells were installed in 2019 in the vicinity of the TEL-GRF (CVWD, 2022a). Based on the results of the additional monitoring and as described in the 2022 Indio Subbasin Alternative Plan Update, TEL-GRF recharge may be increased. In March 2005, CVWD completed construction of a pilot replenishment facility and several monitoring wells on the Martinez Canyon alluvial fan at Avenue 72 and Lemon Blossom Lane. This pilot facility was designed to replenish approximately 4,000 AFY, but the results from the Martinez Canyon Pilot project (operated from 2005 through 2013) indicated that the site may not be ideally suited for groundwater replenishment. Although there have been no deliveries of replenishment water to the Martinez Canyon GRF since 2013.

Direct Replenishment

Table 5.16.1-4: Deliveries for Direct Replenishment at the East Whitewater River Subbasin Area of Benefit lists the annual volumes of Colorado River water delivered to the East Whitewater River Subbasin AOB for direct replenishment from 1997 to 2021. In 2021, CVWD delivered 37,971 AF of Colorado River water for direct replenishment at the TEL GRF. Deliveries of Colorado River water to the TEL-GRF were slightly reduced in 2017 and 2018 from the then-maximum level in 2016 because of pump maintenance and panel repair work done for the Coachella Canal Lining Project. Deliveries in 2019, 2020, and 2021 have returned to a three-year average of 37,217 AF. From 1997 to 2021, a total of 488,396 AF was delivered to the TEL GRF for direct replenishment of the AOB.

In-Lieu Replenishment

In addition to the direct replenishment activities described above, CVWD has used imported Colorado River water since 1949 and recycled water since 1997 to replace groundwater pumping. CVWD continues to work with groundwater users, including farmers, golf courses, and others, to encourage the use of these alternative water sources. Currently, 33 of 37 golf courses in the East Valley receive Colorado River water or recycled water and no longer rely on groundwater as their primary source of irrigation water. Most of the golf courses receive Colorado River water from the Coachella Canal and its laterals for their non-potable irrigation uses. Nine holes of one golf course receive blended recycled and canal water from WRP 7 for part of the year and one golf course receives Canal water from the MVP. The goal for the golf

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courses is to meet their irrigation demands with no more than 20 percent well water for their total irrigation use each FY. CVWD continues to work with golf course managers to encourage them to sign the updated Non-Potable Water Agreement, which includes this requirement, and all new connections sign a Non-Potable Water Agreement that requires 80 percent non-potable water use.

TABLE 5.16.1-4: DELIVERIES FOR DIRECT REPLENISHMENT AT THE EAST WHITEWATER RIVER SUBBASIN AREA OF BENEFIT	
Year	TEL-GRF, AF
1997	415
1998	1,364
1999	2,802
2000	1,813
2001	3,572
2002	2,360
2003	1,671
2004	3,450
2005	4,743
2006	2,648
2007	5,775
2008	7,473
2009	21,735
2010	37,401
2011	32,417
2012	33,166
2013	35,192
2014	36,030
2015	37,262
2016	37,495
2017	34,614
2018	33,348
2019	36,143
2020	37,536
2021	37,971
Total	488,396

Source: 2022-2023 Engineer's Report on Water Supply and Replenishment Assessment, Coachella Valley Water District (April 2022). Table 5-2.

Future Projects

Direct and in-lieu replenishment activities in the East Whitewater River Subbasin AOB are expected to continue and include the following future projects. In addition to various upgrades to the delivery system and existing connections, CVWD completed improvements to the irrigation distribution system within the City of La Quinta, which allow for additional Coachella Canal water utilization for irrigation purposes at golf courses in south La Quinta. Improvements will continue to the L4 Pump Station through 2022 to allow for these golf courses to meet 80 percent of their irrigation needs with non-potable water. Five additional golf courses in the East Valley are planned for connection to receive Colorado River water or a blend with recycled water, to eliminate groundwater pumping in the future. The Oasis In-Lieu Recharge Project is an in-lieu replenishment/source-substitution project identified in the 2022 Indio Subbasin Alternative Plan Update. The project involves the construction of a Canal water distribution system in the Oasis area of the AOB to provide imported Colorado River water for agricultural irrigation on the Oasis slope in-lieu of groundwater production. The project is designed to reduce groundwater production in the area by up to 32,000 AFY. Phase I of the project included two reservoirs to provide additional storage and operational improvements/flexibility in the Oasis area and construction on this phase was completed in December 2020. Construction of Phase 2 includes four reservoirs, five pump stations, and approximately 18 miles of distribution pipeline and expansion of the irrigation distribution system. Phase 2 has an estimated project completion date of November 2022. CVWD filed Wastewater Change Petition WW0093 with the SWRCB pursuant to California Water Code 1211 in support of a proposed recycled water project for CVWD WRP 4. The project is an integral component of the 2022 Indio Subbasin Water Management Plan Update, developed to eliminate groundwater overdraft and the associated adverse impacts by, among other measures, developing additional water sources for source substitution. This recycled water project will also provide important water quality benefits by reducing wastewater discharges to the CVSC and the Salton Sea. The project proposes to produce and deliver recycled water from WRP 4 in four phases to a maximum capacity of 20 million gallons per day (mgd). CVWD continues to seek resolutions to protests received to the change petition. As part of this process, CVWD will initiate project-specific environmental review pursuant to California Environmental Quality Act (CEQA). CVWD is currently working on a Preliminary Engineering Design Report that can be used for the project-specific environmental review.

Need for Continued Replenishment

The historical declines in groundwater levels in the eastern portion of the East Whitewater River Subbasin AOB led to the determination that a management program was required to stabilize the declining groundwater levels and prevent associated adverse effects, such as water-quality degradation and land subsidence. CVWD's GRP for the East Whitewater River Subbasin AOB was developed to serve this need and became effective in 2005. Groundwater levels, as measured in wells across most of the AOB, are a key metric in assessing the effectiveness of the GRP and, since the initiation of direct replenishment at TEL GRF in 1997, have stabilized or are rising. The twelve-year average change in groundwater levels remains positive across most of the AOB, which is evidence that implementation of the GRP has effectively abated the conditions of overdraft that preceded it. Continued artificial replenishment is necessary to maintain these positive trends and prevent a return to overdraft in the future.

Overdraft Mitigation Efforts

In addition to the requirements for the 2020 UWMP, CVWD maintains water management policies within its 2010 CVWMP Update to comprehensively protect and augment the groundwater supply. As defined in the 2010 CVWMP Update, CVWD is reducing reliance on groundwater sources by utilizing more Colorado River water, SWP water and recycled water. Per this plan, CVWD also implements source substitution and conservation measures to reduce demands on the aquifer, with the initial goal stated as being to reduce the overall water demand by 20 percent by 2020 pursuant to SB7-7. The District anticipates this water use reduction level will be maintained through the remainder of the planning period.

CVWD Landscape Ordinance

CVWD Landscape Ordinance 1302.1 required a series of reduction methods, including requirements that new developments install weather-based irrigation controllers that automatically adjust water allocation. Additional requirements included setbacks of spray emitters from impervious surfaces, as well as use of porous rock and gravel buffers between grass and curbs to eliminate run-off onto streets. With the exception of turf, all landscaping, including groundcover and shrubbery, must be irrigated with a drip system. Also, the maximum water allowance for landscaped areas through the CVWD service area has been reduced. This new reduction goal requires that developers maximize the use of native and other drought-tolerant landscape materials and minimize use of more water-intensive landscape features, including turf and fountains.

Source Substitution

Source substitution is the delivery of an alternate source of water to users currently pumping groundwater. The substitution of an alternate water source reduces groundwater extraction and allows the groundwater to remain in storage, thus reducing overdraft. Alternative sources of water include municipal recycled water from Water Reclamation Plant (WRP)-7, WRP-9, WRP 10, and the City of Palm Springs Wastewater Treatment Plant; Colorado River water, desalinated agricultural drain water and re-use of aquaculture water. Source substitution projects include:

- Conversion of existing and future golf courses in the Lower Valley from groundwater to Colorado River Water.
- Conversion of existing and future golf courses in the Upper Valley from groundwater to recycled water and/or Colorado River water via SWP Exchange water.
- Conversion of existing and future golf courses in the Lower Valley from groundwater to Colorado River water via the Mid-Valley Pipeline.
- Conversion of agricultural irrigation from groundwater to Colorado River water, in both the Oasis and Mecca area.
- Conversion of some municipal use from groundwater to treated Colorado River water.

Examples of effective alternative source substitute efforts include the following:

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- CVWD has a non-potable water system that treats recycled water from three water reclamation plants, blends in with canal water and delivers to golf courses, schools, and open spaces for irrigation. Approximately 13,400 ac-ft of recycled water was delivered in 2012.
- CVWD has completed construction of a 54-inch diameter pipeline to deliver Colorado River water to the Mid-Valley area for use with CVWD's recycled water for golf course and open space irrigation. This will reduce pumping from the groundwater basin for these uses.
- CVWD has secured rights to the Colorado River and participated in the construction of the All-American Canal and the Coachella Branch of the All-American Canal. Beginning in the late 1940's, CVWD worked with the U.S. Bureau of Reclamation (USBR) and constructed a distribution system to deliver Colorado River water to the farms in the Lower Valley. This system delivered 245,894 acre-feet of Colorado River water in 2006, and increased deliveries to approximately 317,000 acre-feet in 2012.
- CVWD has recharged the Lower Valley with Colorado River water and is planning the construction of a second major recharge facility that will expand the recharge program. The largest recharge program is operated at the Whitewater River Recharge Facility. The Thomas E. Levy Groundwater Replenishment Facility (TEL facility) will recharge up to 40,000 AFY.
- CVWD has secured rights to SWP water and negotiated exchange and advanced delivery agreements with the Metropolitan Water District of Southern California (MWD) to exchange CVWD's SWP water for MWD's Colorado River water source. The SWP exchange water is used to recharge the Aquifer in the Upper Valley. This recharge program was started in 1973 and has replenished the Aquifer with over two million acre-feet of water.
- CVWD plans to utilize treated agricultural drainage water for irrigation purposes. A desalination pilot study was completed in 2007.
- CVWD has worked with an aquaculture farm and developed water efficiency programs that include water treatment and reuse.
- CVWD intends to implement expansion of the Oasis area irrigation system. This project will reduce groundwater pumping by extending Colorado River water delivery to the Oasis Slope. The Oasis system would deliver Canal and desalinated drain water to serve urban non-potable water uses such as irrigation.

Conservation Programs

CVWD continues to work with the cities in its service area to limit the amount of water that is used for outdoor landscaping. As a result of the adoption of statewide indoor water conservation measures requiring low flush toilets, shower and faucet flow restrictors and other devices, the amount of water used inside homes has been significantly reduced. With the large number of new homes constructed, these conservation programs have reduced impacts of new development on the Aquifer. Also, in 2016 CVWD adopted Water Budget based tiered rates to discourage excessive water use. The Desert Retreat Specific Plan will be required to implement CVWD conservation measures to assure the most efficient use of water resources and to meet and maintain the 2020 water conservation goals throughout the life of the Project. In addition, the Project will strictly adhere to CVWD's landscape ordinance.

Aquifer Adjudication

The groundwater basin has not been adjudicated. From a management perspective, CVWD divides the portion of the Subbasin within its service area into two AOBs designated as the West Whitewater River Subbasin AOB and the East Whitewater River Subbasin AOB. The dividing line between these two areas is

an irregular line trending northeast to southwest between the Indio Hills north of the City of Indio and Point Happy in La Quinta. The West Whitewater River Subbasin is jointly managed by CVWD and DWA under the terms of the 2014 Whitewater Management Agreement. The East Whitewater River Subbasin AOB is managed by CVWD.

Groundwater Sufficiency

The 2020 UWMP reports CVWD's actual service area urban water demand at 109,300 AF in 2020. Projected urban water demand in the 2020 UWMP for the year 2045 is anticipated to be 164,966 AF. Total buildout water demand of the Project is estimated to be approximately 1,096.59 AFY, which represents approximately 0.65 percent of the total anticipated urban demand of 164,966 in CVWD's urban water system projected for 2045. With almost 30 million acre-feet of combined storage followed by groundwater management planning adopted in the 2020 UWMP and 2010 CVWMP Update, the aquifer has sufficient available water to supply the Desert Retreat Specific Plan project and other present and anticipated needs for the normal year, as well as one or more multiple dry years, over the next 20 years.

Additional Water Sources

Groundwater provides the main water supply for the Coachella Valley. Additional water sources are considered as a supplement to groundwater in that they are used to recharge the Aquifer, serve as a source substitution for groundwater, or are used for irrigation in other locations in the subbasin. If it becomes available to the project site, the Desert Retreat Specific Plan Project will utilize recycled water on site to meet non-potable water demands.

Colorado River Water

The Coachella Canal is a branch of the All-American Canal, which brings Colorado River water into the Imperial and Coachella Valleys. The service area for Colorado River water delivery under CVWD contract with the U.S. Bureau of Reclamation (USBR) is defined as Improvement District No. 1 (ID-1). Under the 1931 California Seven Party Agreement, CVWD has high priority water rights to Colorado River water as part of the first 3.85 million acre-feet of the 4.4 million acre-feet-allocated to California.

California's Colorado River supply is protected by the 1968 Colorado River Basin Project Act, which provides that the Colorado River supplies to Arizona and Nevada projects constructed after 1968 shall be reduced to zero before California will be reduced below 4.4 million acre-feet in any year. This provision assures full supplies to the Coachella Valley except in periods of extreme drought.

Historically, CVWD has received approximately 330,000 AFY of Priority 3A Colorado River water delivered via the Coachella Canal. The 2003 Quantification Settlement Agreement (QSA) among some of the California Colorado River contactors provides contractual obligation for the supply to CVWD. A number of lawsuits have unsuccessfully challenged the QSA agreements and transfers in state and federal court. The QSA was entered into and between CVWD, Imperial Irrigation District (IID), Metropolitan Water District (MWD) and the San Diego County Water Authority (SDCWA). The QSA quantifies distribution

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allotments of Colorado River water rights in California, including CVWD’s Colorado River Rights, for the next 75 years. The agreements provide for additional transfer of Colorado River allocations to CVWD from the IID and MWD. As shown in **Table 5.16.1-5: Colorado River Deliveries to CVWD under the Quantification Settlement Agreement**, as of 2015, CVWD receives 378,000 AFY of Colorado River Water. CVWD’s allocation of Colorado River Water will increase to 419,000 AFY in 2018, and 459,000 AFY in 2026, then reduce to 456,000 AFY in 2048 and remain at the level for the remaining 75-year term of the QSA.

Component	2015 Amount (AFY)	2026-2047 Amount (AFY)	2048-2077 Amount (AFY)
Base Entitlement	330,000	330,000	330,000
Less Coachella Canal Lining (to SDCWA)	-26,000	-26,000	-26,000
Less Miscellaneous/Indian PPRs	-3,000	-3,000	-3,000
1988 MWD/IID Approval Agreement	20,000	20,000	20,000
First IID/CVWD Transfer	36,000	50,000	50,000
Second IID/CVWD Transfer	0	53,000	0
MWD/CVWD Replacement Water ^a	0	0	50,000
MWD/CVWD SWP Transfer ^b	35,000	35,000	35,000
Total Allocation	392,000	459,000	456,000
<i>Less Conveyance Losses and Regulatory Water^c</i>	<i>-14,000</i>	<i>-14,000</i>	<i>-14,000</i>
Total Deliveries to CVWD	378,000	445,000	442,000

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

Note: AFY = Acre-Feet per year; IID = Imperial Irrigation District; CVWD = Coachella Valley Water District; San Diego County Water Authority; MWD = Metropolitan Water District

^a MWD assumes the obligation to provide 50,000 AFY of replacement water after 2048.

^b The 35,000 AFY may be delivered at either Imperial Dam or Whitewater River and is not subject to SWP or Colorado River reliability.

^c Conveyance losses and regulatory water based on 2009-2014 averages.

Water from the Coachella Canal provides a significant supply source for the Lower Valley. In 1999, the Coachella Canal supplied over 60 percent of the water used in the Lower Valley but provided less than one percent of the water supply to the Upper Valley. Most of the canal water was used for crop irrigation in the Lower Valley. In 1995, CVWD began operating the Dike No. 4 pilot recharge facility in La Quinta. As discussed previously in Source Substitution, this facility has successfully demonstrated that adequacy of this site to recharge the aquifer. This facility was expanded in 1998. This site known as the Thomas E. Levy Groundwater Replenishment (Levy) Facility at the Dike 4 site was expanded in 2009 and put into full operation.

Future development and associated increases in water demand, as well as quality concerns, are expected to increase use of Colorado River water for domestic purposes. Determining the best way to treat this water in order to substitute for and decrease the area’s dependency on groundwater is an important

objective of the 2010 CVWMP Update and 2010 UWMP. The 2010 CVWMP Update calls for the treatment and distribution of as much as 62,000 ac-ft of Colorado River water for domestic use annually.

State Water Project

The State Water Project (SWP) is managed by DWR and includes 705 miles of aqueduct and conveyance facilities extending from Lake Oroville in Northern California to Lake Perris in Southern California. The SWP has contracts to deliver 4.172 million AFY to the State Water Contractors. The State Water Contractors consist of 29 public entities with long-term contracts with DWR for all, or a portion of, their water supply needs. In 1962 and 1963, DWA and CVWD, respectively, entered contracts with the State of California for a total of 61,200 AFY of SWP water. SWP water has been an important component of the region's water supply mix since CVWD and DWA began receiving and recharging SWP exchange water at the WWR-GRF. Starting in 1973, CVWD and DWA began exchanging their SWP water with MWD for Colorado River water delivered via MWD's Colorado River Aqueduct. Because CVWD and DWA do not have a physical connection to SWP conveyance facilities, MWD takes delivery of CVWD's and DWA's SWP water, and in exchange, delivers an equal amount of Colorado River water to the Whitewater Service Connections (for recharge at WWR-GRF and Mission Creek Groundwater Replenishment Facility). The exchange agreement was most recently re-established in the 2019 Amended and Restated Agreement for Exchange and Advance Delivery of Water.

Each SWP contract contains a "Table A" exhibit that defines the maximum annual amount of water each contractor can receive excluding certain interruptible deliveries. DWR uses Table A amounts to allocate available SWP supplies and some SWP project costs among the contractors. Each year, DWR determines the amount of water available for delivery to SWP contractors based on hydrology, reservoir storage, the requirements of water rights licenses and permits, water quality, and environmental requirements for protected species in the Sacramento-San Joaquin River Delta (Delta). The available supply is then allocated according to each SWP contractor's Table A amount.

CVWD's and DWA's collective increments of Table A water are listed in **Table 5.16.1-6: State Water Project Table A Allocations**. Original Table A SWP water allocations for CVWD and DWA were 23,100 AFY and 38,100 AFY, respectively, for a combined amount of 61,200 AFY. CVWD and DWA obtained a combined 100,000 AFY transfer from MWD under the 2003 Exchange Agreement. In 2004, CVWD purchased an additional 9,900 AFY of SWP Table A water from the Tulare Lake Basin Water Storage District (Tulare Lake Basin) in Kings County. In 2007, CVWD and DWA made a second purchase of Table A SWP water from Tulare Lake Basin totaling 7,000 AFY. In 2007, CVWD and DWA also completed the transfer of 16,000 AFY of Table A Amounts from the Berrenda Mesa Water District in Kern County. These latter two transfers became effective in January 2010. With these additional transfers, the total SWP Table A Amount for CVWD and DWA is 194,100 AFY. **Table 5.16.1-7: CVWD and DWA Groundwater Recharge of State Water Project Exchange Water** shows the recharge of SWP Exchange Water from 2017 through 2021.

TABLE 5.16.1-6:
STATE WATER PROJECT TABLE A ALLOCATIONS

	Original SWP Table A	Tulare Lake Basin 2004 Transfer	Metropolitan 2003 Transfer	Tulare Lake Basin 2007 Transfer	Berrrenda Mesa 2007 Transfer	Total
CVWD	23,100	9,900	88,100	5,250	12,000	138,350
DWA	38,100	--	11,900	1,750	4,000	55,750
Total	61,200	9,900	100,000	7,000	16,000	194,100

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

TABLE 5.16.1-7:
CVWD AND DWA GROUNDWATER RECHARGE OF STATE WATER PROJECT EXCHANGE WATER

Groundwater Recharge (AF)	2017	2018	2019	2020	2021
Whitewater River GRF	385,994	129,725	235,600	126,487	15,006
Mission Creek GRF	9,248	2,027	3,688	1,768	0
Total	395,242	131,752	239,288	128,255	15,006

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

As noted previously, CVWD and DWA do not directly receive SWP water. Rather, CVWD and DWA have entered into an exchange agreement with MWD that allows MWD to take delivery of CVWD and DWA SWP Table A water. In exchange, MWD provides an equal amount of Colorado River water that MWD transports through its Colorado River Aqueduct, which crosses the Coachella Valley near Whitewater.

The exchange agreement allows for advanced delivery and storage of water, thereby providing better and more efficient water management. Water is only recharged when SWP and exchange waters are available. The large storage capacity of the Coachella Valley Aquifer and the large volume of water in storage allows CVWD and DWA to pump from the Aquifer for a number of years without recharging. Large amounts of water can be recharged into the Aquifer when the water is available.

Factors Potentially Impacting SWP Delivery Reliability

DWR issues the State Water Project Delivery Reliability Report every two years. The Final State Water Project Availability Report, 2021¹ (Final 2021 SWP Report), accounts for impacts to water delivery reliability and assesses water delivery capability (See Appendix N of this Draft EIR). This allocation percentage is based on computer modeling of the state's watersheds, and past hydrology adjusted for factors that affect reliability. CVWD's long-range water supply modeling assumes that it will receive only

1 California Department of Water Resources. *The State Water Project: Final Delivery Capability Report 2021*. September 2022. "Delivery Capability Report and Studies 2021." Accessed December 2022.

45% of its State Water Project allocations, which is more conservative than the guidance provided by DWR (58%).

There are three significant factors that underscore the importance of assessing the SWP's water delivery capability: the effects of population growth on California's balance of water supply and demand, State legislation intended to help maintain a reliable water supply, and the impacts of potential climate change-driven shifts in hydrologic conditions. Each of these factors is discussed in greater detail within the Final 2021 SWP Report and in **Appendix N**.

Surface Water

CVWD does not currently use or intend to use any local surface water (non-imported surface water) as part of its urban water supply. Local runoff is captured and used for groundwater recharge.

Surface Water supply comes from several local rivers and streams including the Whitewater River, Snow Creek, Falls Creek and Chino Creek, as well as a number of smaller creeks and washes. In 1999, surface water supplied approximately three percent of the total water supply to the Upper Valley to meet municipal demand, and none to the lower valley. Because surface water supplies are affected by variations in annual precipitation, the annual supply is highly variable. Since 1960, the historical surface water diversions have ranged from approximately 1,400 to 8,500 AFY. For the period 2010-2019, DWA's average annual surface water diversions from all sources totaled 1,832 AFY. The remaining un-diverted surface water is recharged into the Indio Subbasin through the natural streambed near Snow Creek Road/Highway 111, Chino Canyon, and the Whitewater River Channel.

Wastewater and Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other purposes; however, treated wastewater is not suitable for direct potable use. Recycled wastewater has historically been used for irrigation of golf courses and municipal landscaping in the Coachella Valley since the 1960s. As growth occurs in the East Valley, the supply of recycled water is expected to increase, creating an additional opportunity to maximize local water supply.

CVWD operates five water reclamation plants (WRPs), two of them (WRP-7 and WRP-10) generate recycled water for irrigation of golf courses and large landscaped areas. WRP-4 became operational in 1986 and serves the communities from La Quinta to Mecca. WRP-4 effluent is not currently recycled; however, it will be in the future when the demand for recycled water develops and tertiary treatment is constructed. The other two WRPs serve isolated communities near the Salton Sea. A sixth WRP (WRP-9) was decommissioned in July 2015.

Indio Water Authority (IWA) serves the City of Indio, where wastewater treatment is provided by Valley Sanitary District (VSD). VSD owns and operates an 11 MGD (12,320 AFY) capacity wastewater treatment facility that serves most of the City of Indio. The City of Indio and the VSD have formed a Joint Powers Authority to plan, program, finance, and design and operate a Reclaimed Water Facility. This facility

would provide advanced treatment for effluent from VSD’s plant and create a new sustainable source of supply. Initial planning for the first phase is currently underway, as of the publication of the 2020 UWMP.

Purchases, Exchanges, or Transfers

To further help meet its long-term supply needs, CVWD purchases Table A Amounts from SWP contractors as they have become available. Additional purchases from the SWP and from others with water rights, mainly in the Central Valley of California, will be evaluated as they become available to determine whether they meet CVWD’s needs. If they do, CVWD may purchase additional SWP water rights.

Summary of Primary and Additional Water Sources

Table 5.16.1-8: Existing CVWD Water Supply Table A Amounts shows CVWD’s existing and water supply entitlements, rights and service contracts as discussed above.

TABLE 5.16.1-8 EXISTING CVWD WATER SUPPLY TABLE A AMOUNTS						
Supply	Existing Supplies (afy)	Entitlement	Right	Contract	Other	Ever Utilized?
Groundwater	Unspecified ^a				X	Yes
Coachella Canal	459,000 ^b			X		Yes
SWP Exchange Water ^c	138,350 ^d	X	Yes			
Recycled Water	14,000				X	Yes

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

- a. CVWD shares a common groundwater source that has not been adjudicated
- b. As quantified in the Quantification Settlement Agreement between IID, MWD, and DVWD, October, 2003.
- c. Imported SWP Exchange Water is not used as a direct water supply source, but rather is used to recharge groundwater supplies in the Coachella Valley.
- d. Includes Original Table A Amount, Tulare Agreement, Berrenda Mesa Agreement, and MWD Agreement.

Water Supply and Demand

The Coachella Valley has been primarily dependent on groundwater as a source of domestic water supply since the early part of the 20th century. The current demand, as of 2021, is at approximately 101,546 AF annually.² Deliveries of Colorado River water and MWD SWP transfer water help offset groundwater demand.

As shown in Table 5.16.1-9: Projected Average Urban Water Supply (AFY), the 2015 UWMP projects that the percentage of water from each of the current water supply sources will change significantly by 2040, relative to 2015 conditions.

2 Coachella Valley Water District (CVWD). 2020 Regional UWMP (2019). <https://www.cvwd.org/DocumentCenter/View/5482/Coachella-Valley-RUWMP>. Accessed December 2022.

**TABLE 5.16.1-9
PROJECTED AVERAGE URBAN WATER SUPPLY (AFY)**

Water Supply	Additional Detail on Water Supply	Projected Water Supply (AF)				
		2020	2025	2030	2035	2040 (opt)
Groundwater	Potable urban use	113,400	102,100	112,700	106,600	101,000
Purchased or Imported Water	Treated Canal water for potable urban use in East Valley ^a	0	18,000	18,000	31,000	40,000
Urban Potable Subtotal		113,400	120,100	130,700	137,600	141,000
Purchased or Imported Water	Untreated Canal water for non-potable urban use in East Valley ^a	1,200	11,000	17,000	26,300	33,300
Desalinated Water	Desalinated drain water for non-potable urban use	0	5,000	10,000	15,000	20,000
Urban Non-Potable Subtotal		1,200	16,000	27,000	41,300	53,300
Recycled Water	WRP-7 ^b	3,400	3,700	4,000	4,300	4,600
Recycled Water	WRP-10 ^b	10,900	11,300	11,700	12,100	12,500
Recycled Water	WRP-4 ^{b,c}	0	12,700	15,100	17,500	19,200
Recycled Water Subtotal		14,300	27,700	30,800	33,900	36,300
Total Retail Supply		128,900	163,800	188,500	212,800	230,600
Purchased or Imported Water	Sale of Canal water to IWA for potable use	5,000	10,000	20,000	20,000	20,000
Total Wholesale Supply		5,000	10,000	20,000	20,000	20,000

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

Note: IWA = Indio Water Authority

^a Total Colorado River allotment will increase from 397,000 AF in 2016 to 459,000 AF in 2026. Colorado River water supply does not sum in total right because of nonurban supply not shown on this table and projected wholesale to other agencies.

^b Recycled water safe yield is based on total projected flows at each WWTP; surface discharge and percolated wastewater effluent is not included in the reasonably available supply estimates.

^c Assumes tertiary treatment is not available until after 2020 at WRP-4.

Groundwater and Groundwater Storage

As supply and demand changes, the amount of groundwater in storage changes to make up the difference between the demand and the supply. Other than Canal water, recycled wastewater and desalinated agricultural drain water, all water delivered to the end users is obtained from the groundwater basin. The groundwater basin has the capacity of approximately 29.8 million AF. It acts as a very large reservoir. It is capable of meeting the water demands of the Coachella Valley for extended periods.

As discussed in the 2010 CVWMP Update, CVWD has many programs to maximize the water resources available to it including recharge of its Colorado River and SWP supplies, recycled wastewater, desalinated agricultural drain water, conversion of groundwater uses to Canal water and conservation including tiered water rates, a landscaping ordinance, outreach, and education. The 2010 CVWMP Update and CVWD replenishment assessment programs establish a comprehensive and managed effort to

eliminate the overdraft. The effectiveness of the District's programs is clear and shows that there will be a steady increase in water in storage with limited disruption to this pattern through 2045.

Long-Term Average SWP Deliveries

The amount of SWP supply that is available to CVWD for its own use was considered as the long-term average SWP supply. The published capability of the SWP water has decreased over time. The factors that could affect the SWP capability considered in the 2020 UWMP and the 2010 CVWMP update are:

- Uncertainty in modeling restrictions associated with biological opinions,
- Risk of levee failure in the Delta,
- Additional pumping restrictions resulting from biological opinions on new species or revisions to existing biological opinions,
- Impacts associated with litigations such as the California ESA lawsuit, and
- Climate Change impacts.

Due to these factors and the need to plan for higher contingency, the planning assumption in the 2010 CVWMP Update and the 2020 UWMP is that the long-term future annual average SWP capability will be at 50 percent until successful completion of the Bay-Delta conservation Plan and Delta conveyance facilities. CVWD's most-recent long-range plans, including the 2020 Indio Subbasin Water Management Plan Update that was approved by CVWD in December 2021, apply an even more conservative assumption of 45% of SWP allocations, which is less than DWR guidance of 58%.³

Groundwater basin recharge through direct and in-lieu (indirect) recharge is a major element of CVWD's water management activities. CVWD has spent over \$43.5 million on the construction of the TEL Replenishment Facility in the East Coachella Valley and over \$42 million on the construction of the Mid-Valley Pipeline to move canal water into the Northern Coachella Valley for source substitution of groundwater. The protection of the Aquifer storage will be addressed through additional water supply purchases, water conservation, and source substitution similar to the ones described in the 2010 CVWMP Update.

Tables 5.16.1-10 through 5.16-14 below provide CVWD's projected water supplies and demands in a normal year, single dry year, and multiple dry years. These tables combine retail and wholesale numbers to simplify the presentation. It should be noted that the retail supplies and demands presented in the tables below include recycled water delivered to CVWD's non-urban customers based on DWR's standardized tables and the 2020 UWMP Guidebook. However, as discussed in the 2020 CVWD UWMP, recycled water is not considered an urban water supply and is not delivered to CVWD's urban water customers. Instead, recycled water is used to offset the groundwater pumping of private well owners (mainly golf courses) to eliminate overdraft. The wholesale demand and supply listed is the anticipated sale of raw Colorado River water to the Indio Water Authority. These tables indicate that CVWD will be

3 CVWD. *Indio Subbasin Annual Report for Water Year 2020-2021*. February 2020. Page 6-20.

5.16.1 Water Service and Supply

able to meet current and future urban water demand needs through groundwater pumping, recharge with Colorado River water, and distribution of treated Colorado River water during normal, single dry, and multiple dry years over at least the next 20 years.

DWR, requires the supply reliability tables to include both potable and recycled water; this is summarized below in **Table 5.16.1-10: Supply and Demand Comparison – Normal Year (AFY)** (adapted from DWR Table 7-2 R and DWR Table 7-2 W), for the average year.

TABLE 5.16.1-10: SUPPLY AND DEMAND COMPARISON – NORMAL YEAR (AFY)					
	2025	2030	2035	2040	2045
Supply Totals (AFY)	137,061	144,982	152,729	158,981	164,966
Groundwater	123,461	130,582	137,629	143,081	148,166
Recycled Water	13,600	14,400	15,100	15,900	16,800
Demand Totals (AFY)	137,061	144,982	152,729	158,981	164,966
Potable Water Demand	123,461	130,582	137,629	143,081	148,166
Recycled Water Demand	13,600	14,400	15,100	15,900	16,800
Difference	0	0	0	0	0

Source: 2020 Regional Urban Water Management Plan

Note: CVWD and the other Regional UWMP agencies collaborate on groundwater management plans for long-term sustainability. During a normal year, single-dry year, or five-dry year period, the agencies could produce additional groundwater if demands exceeded the estimates shown here.

CVWD does not use recycled water in its urban water supply; therefore, a version of this table without recycled water is presented in **Table 5.16.1-11: Normal Year Supply and Demand Comparison – Urban Supply Only**, which more accurately represents CVWD’s urban water supply reliability.

TABLE 5.16.1-11: NORMAL YEAR SUPPLY AND DEMAND COMPARISON – URBAN SUPPLY ONLY						
		2020	2025	2030	2035	2040 (opt)
Retail	Supply (AF)	114,600	136,100	157,700	178,900	194,300
	Demand Totals (AF)	114,600	136,100	157,700	178,900	194,300
	Difference (AF)	0	0	0	0	0
Wholesale	Supply (AF)	5,000	10,000	20,000	20,000	20,000
	Demand Totals (AF)	5,000	10,000	20,000	20,000	20,000
	Difference (AF)	0	0	0	0	0

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

Note: AF = Acre-Feet

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Urban water supplies during the single dry year are 100 percent reliable. Thus, the supply and demand comparison for the single dry year, shown in **Table 5.16.1-12: Supply and Demand Comparison – Single Dry Year (AFY)** (adapted from DWR Table 7-3 R and DWR Table 7-3 W) is the same as the average year.

TABLE 5.16.1-12: SUPPLY AND DEMAND COMPARISON – SINGLE DRY YEAR (AFY)						
		2020	2025	2030	2035	2040 (opt)
Retail	Supply (AF)	128,900	163,800	188,500	212,800	230,600
	Demand Totals (AF)	128,900	163,800	188,500	212,800	230,600
	Difference (AF)	0	0	0	0	0
Wholesale	Supply (AF)	5,000	10,000	20,000	20,000	20,000
	Demand Totals (AF)	5,000	10,000	20,000	20,000	20,000
	Difference (AF)	0	0	0	0	0

Source: *Appendix N, Water Supply Assessment and Water Supply Verification.*

Note: AF = Acre-Feet

Table 5.16.1-13: Supply and Demand Comparison Urban Use Only – Single Dry Year (AFY), presents the urban supply and demand comparison without recycled water.

TABLE 5.16.1-13: SUPPLY AND DEMAND COMPARISON URBAN USE ONLY – SINGLE DRY YEAR (AFY)						
		2020	2025	2030	2035	2040 (opt)
Retail	Supply (AF)	114,600	136,100	157,700	178,900	194,300
	Demand Totals (AF)	114,600	136,100	157,700	178,900	194,300
	Difference (AF)	0	0	0	0	0
Wholesale	Supply (AF)	5,000	10,000	20,000	20,000	20,000
	Demand Totals (AF)	5,000	10,000	20,000	20,000	20,000
	Difference (AF)	0	0	0	0	0

Source: *Appendix N, Water Supply Assessment and Water Supply Verification.*

Note: AF = Acre-Feet

Similar to the single dry year, the multiple dry year urban water supply reliability is 100 percent. **Table 5.16.1-14: Supply and Demand Comparison – Multiple Dry Years (AFY)** summarizes the multiple dry year supply and demand comparison.

**TABLE 5.16.1-14:
SUPPLY AND DEMAND COMPARISON – MULTIPLE DRY YEARS (AFY)**

			2020	2025	2030	2035	2040 (opt)
Retail	1 st Year	Supply (AF)	128,900	163,800	188,500	212,800	230,600
		Demand Totals (AF)	128,900	163,800	188,500	212,800	230,600
		Difference (AF)	0	0	0	0	0
	2 nd Year	Supply (AF)	128,900	163,800	188,500	212,800	230,600
		Demand Totals (AF)	128,900	163,800	188,500	212,800	230,600
		Difference (AF)	0	0	0	0	0
	3 rd Year	Supply (AF)	128,900	163,800	188,500	212,800	230,600
		Demand Totals (AF)	128,900	163,800	188,500	212,800	230,600
		Difference (AF)	0	0	0	0	0
Wholesale	1 st Year	Supply (AF)	5,000	10,000	20,000	20,000	20,000
		Demand Totals (AF)	5,000	10,000	20,000	20,000	20,000
		Difference (AF)	0	0	0	0	0
	2 nd Year	Supply (AF)	5,000	10,000	20,000	20,000	20,000
		Demand Totals (AF)	5,000	10,000	20,000	20,000	20,000
		Difference (AF)	0	0	0	0	0
	3 rd Year	Supply (AF)	5,000	10,000	20,000	20,000	20,000
		Demand Totals (AF)	5,000	10,000	20,000	20,000	20,000
		Difference (AF)	0	0	0	0	0

Source: *Appendix N, Water Supply Assessment and Water Supply Verification.*

Note: AF = Acre-Feet

Water Quality

Basin wide groundwater quality is difficult to characterize because groundwater quality varies with such factors as depth (or the screened interval of a water supply well), proximity to faults, presence of surface contaminants, proximity to the recharge basin, and other hydro-geologic or cultural features. A complete discussion of water quality may be found in **Section 5.8: Hydrology and Water Quality** of this Draft EIR.

Project Site

The Project Site includes a total land area of approximately 377 acres in the City of Indio, in Riverside County, and is currently vacant and uninhabited, and is not being utilized for agriculture or any other purposes. As such, there is no existing water demand on the Project Site. Development within the project will be served by a private network of lines that will connect to existing public CVWD water and sewer lines located at three points of connection off Avenue 38, Avenue 40, and near the corner of Avenue 39 and Jefferson Street.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine whether a project would have a significant effect on the environment (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant impact to water services, if it would:

- Threshold 5.16.1-1: Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.**
- Threshold 5.16.1-2: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.**

Methodology

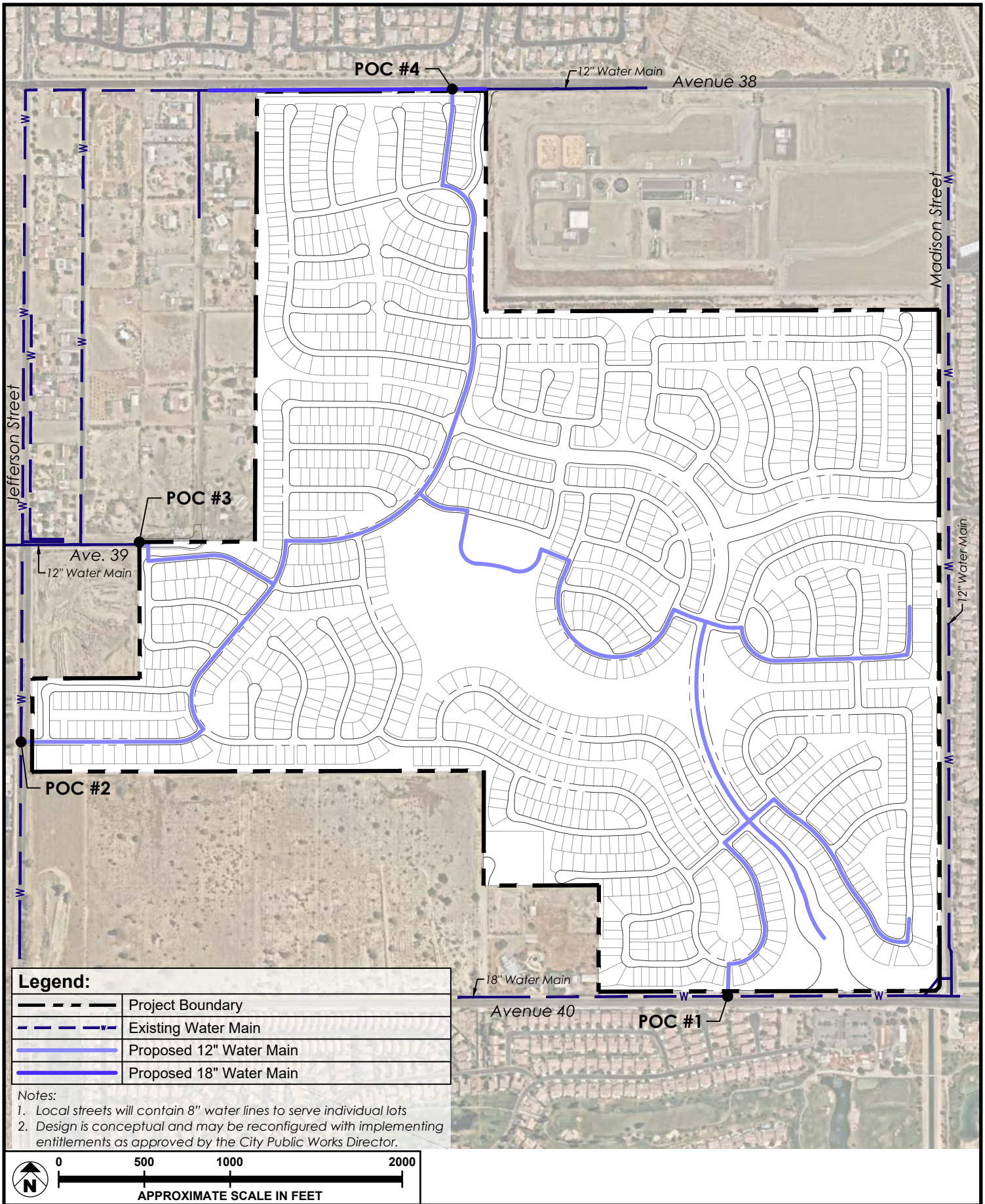
The analysis of water resources and water supply is based upon the understanding of projected water supplies as developed by CVWD and used the WSA/WSV prepared for the Project (see **Appendix N**), including estimates of available groundwater, Colorado River water, and SWP sources.

The Project's water supply analysis included in this Draft EIR is based upon the WSA/WSV, which is incorporated herein by reference and included as **Appendix N**. The WSA for the Project focuses on the adequacy of groundwater and other alternative water sources to supply amounts of water sufficient to meet the water demands of the Project. Additional water sources are considered as a supplement to groundwater in that they are used to recharge the aquifer, serve as a source substitution for groundwater, or are used for irrigation. Once available to the Project Site, the Project will utilize recycled water on site to supplement non-potable water demands.

Project Impacts

- Threshold 5.16.1-1: Would the project require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects?**

The Project is required by CVWD to design and install an 18-inch pipeline on Avenue 38 from Primrose Lane easterly along the project frontage to the Project entrance at the intersection of Avenue 38 and Talavera Boulevard. As shown in **Figure 5.16.1-3: Conceptual Master Water Plan**, development within



SOURCE: MSA Consulting, Inc., Desert Retreat Specific Plan – 2022

FIGURE 5.16.1-3

5.16.1 Water Service and Supply

the project will be served by a private network of lines that will connect to existing public CVWD water and sewer lines located at three points of connection off Avenue 38, Avenue 40, and near the corner of Avenue 39 and Jefferson Street.

The CVWD will further require the Project to contribute its fair share to the construction of a new 7 million-gallon reservoir to accommodate the Project's storage requirement. Furthermore, the Project is required to construct three well sites with locations approved by CVWD. The Project provides for the development of private well(s) in order to reduce the domestic water demand for the development and will also construct a private water well to serve as a backup water supply for the common area landscaping. It is anticipated that all non-residential outdoor irrigation demand will be met with non-potable water.

Construction impacts associated with the installation of the on-site and off-site connections are expected to be confined to trenching and related construction activities would be temporary and limited. In addition, the off-site water line on Avenue 38 would be constructed within previously disturbed right-of-way and would not have any significant environmental effects. All improvements related to water service would be completed in accordance with City and CVWD standards which would preclude any interruptions in existing service of the surrounding properties. Therefore, impacts to City's available water supply and infrastructure would be less than significant.

Threshold 5.16.1-2: Would the project result in insufficient water supplies available to serve and project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Development of the Project would result in an overall increase in water demand from the Project Site during operation. Water consumption projections for the Project are based on the analysis contained in the Water Supply Assessment/Water Supply Verification (WSA/WSV) prepared for the Project (see Appendix N). As shown in Table 5.16.1-15: **Estimated Project Water Service Demands for Residential, Commercial, and Other Uses**, the Project would have an increased water demand of 1,096.59 AFY, or 2.9 acre-feet per acre. It is anticipated that 454.78 AFY of the total Project demand will be met with non-potable water.

**TABLE 5.16.1-15:
ESTIMATED PROJECT WATER SERVICE DEMANDS FOR RESIDENTIAL, COMMERCIAL, AND OTHER USES**

Land Use	Water Demand (AFY)
Residential	633.31
Non-Residential	124.23
Open Space	333.92
IID Substation	3.08
CVWD Well Sites	2.05
Total	1,096.59

Source: Appendix N, Water Supply Assessment and Water Supply Verification.

Note: AFY = Acre-Feet per year

The Project water demand is estimated as 1,096.59 AFY, including indoor and outdoor use for the residential and non-residential areas. This quantity is approximately 0.65-percent of the total water projected to be supplied by the CVWD in 2045 (164,966 AFY). The residential water demand is 633.31 AFY, the non-residential demand is 124.23 AFY, and outdoor water demand is estimated to be 333.92 AFY. It is anticipated that 454.78 AFY of the total Project demand will be met with non-potable water.

The WSA/WSV reports CVWD's actual service area urban water demand at 101,546 AF in 2021. Projected urban water demand in the 2020 UWMP for the year 2045 is anticipated to be 148,166 AF. As shown in **Table 5.16.1-16: Impact of Project Demand on Groundwater Supply (AFY)**, total buildout water demand of the Project is estimated to be approximately 1,096.59 AFY, which represents approximately less than 1 percent of the total anticipated urban demand of 148,166 AF in CVWD's urban water system projected for 2045. With almost 30 million acre-feet of combined storage followed by groundwater management planning adopted in the 2020 UWMP and 2010 CVWMP Update, the aquifer has sufficient available water to supply the Project and other present and anticipated needs for normal year, as well as one or more multiple dry years, over the next 20 years.

**TABLE 5.16.1-16:
IMPACT OF PROJECT DEMAND ON GROUNDWATER SUPPLY (AFY)**

Desert Retreat Specific Plan	2045
Total Supply	148,166 AF
Project Demand	1,096.59 AFY
Percent of Supply	0.65 %

Source: Total supply extrapolated from Desert Retreat WSA/WSV, Section 7.1: Water Supply Assessment.

As previously shown above, **Tables 5.16.1-10 through 5.16.1-14** provide CVWD's projected water supplies and demands in a normal year, single dry year, and multiple dry years. These tables combine retail and wholesale numbers to simplify the presentation. It should be noted that the retail supplies and demands presented in these tables include recycled water delivered to CVWD's non-urban customers based on DWR's standardized tables and the 2020 UWMP Guidebook. However, as discussed in the 2020

5.16.1 Water Service and Supply

CVWD UWMP, recycled water is not considered an urban water supply and is not delivered to CVWD's urban water customers. Instead, recycled water is used to offset the groundwater pumping of private well owners (mainly golf courses) to eliminate overdraft. CVWD will be able to meet current and future urban water demand needs through groundwater pumping, recharge with Colorado River water, and distribution of treated Colorado River water during normal, single dry, and multiple dry years over at least the next 20 years.

As outlined in their 2020 Urban Water Management Plan (UWMP), and as previously shown above in **Tables 5.16.1-10** through **5.16.1-14**, CVWD anticipates that supply in their service area will be sufficient to meet current and future projected urban water demand needs. CVWD's 2020 UWMP considers new development in the service area and concludes that the water district has enough water to meet the predicted demand through the year 2045. CVWD is able to forecast future population growth within the CVWD service area through 2045 by assessing 2010 U.S. Census Data, DWR's Population Tool, the Southern California Association of Governments' (SCAG) 2020 Connect SoCal Regional Transportation Plan, and seasonal occupancy data from the Greater Palm Springs Convention and Visitors Bureau.

As the Project proposes intensities of land uses consistent with the City of Indio's existing General Plan and zoning designations (see **Section 5.9: Land Use and Planning** for further discussion), Project's water demands are included in CVWD's long-range planning documents. Accordingly, the WSA/WSV prepared for the Project concludes that there is substantial evidence to support a determination that there will be sufficient water supplies to meet the demands of the Project, as well as for future demands of the Project plus all forecasted demands in the next 20 years, based on CVWD's approved long-range plans. This is based on the volume of water available in the aquifer, CVWD's Colorado River contract supply, SWP allocations, water rights and water supply contracts, and CVWD's commitment to eliminating overdraft and reducing per capita water use in CVWD's service area.

CVWD limits its calculated supply figures to match demand, because it will only extract the minimum required groundwater from the aquifer in any given year. Per the 2020 UWMP and the 2010 CVWMP Update, CVWD included water demand from new development that it assumed would occur within its service area. The projected demand for the Project would therefore account for only a small fraction of the projected demands.

Based on the information, analysis, and findings documented in the WSA for the Project, there is substantial evidence to support a determination that there will be sufficient water supplies to meet the demands of the Project, as well as for future demands of the Project plus all forecasted demands in the next 20 years. However, the Project would incorporate Mitigation Measures **MM 5.16.1-1** through **MM 5.16.1-4** in order to ensure water resources are conserved and maximized to the greatest extent feasible through low-flow, low-flush building water fixtures and conservation elements and water efficient landscaping for residential units and open space uses. Additionally, implementation of **MM 5.16.1-5** would reduce the Project's reliance on the CVWD Domestic Water System through requiring the

construction of a private recycled water system to irrigate common area landscaping, including street parkways and open space areas.

The Project is consistent with the City's General Plan and as required by the City's General Plan Update EIR,⁴ the project would be required to comply with City of Indio Municipal Code Section 156.035, which identifies standards for design and improvements applicable to subdivisions and requires improvement plans to identify water system improvements adequate to serve the proposed subdivision; Municipal Code Section 54.062, which addresses water conservation in landscaping and prohibits water waste from inefficient landscape irrigation; GPU Policies; and, participate in regional water conservation and planning efforts. With adherence to federal, State, and local requirements related to water use, incorporation of Project Design Features, and implementation of **MM 5.16.1-1** through **MM 5.16.1-5**, the Project would have less than significant impacts related to the water supply.

CUMULATIVE IMPACTS

Regional development of residential, commercial, and industrial sites will result in an increased demand on the potable water supply. The entire Coachella Valley utilizes an underground aquifer for its water supply needs. Therefore, cooperation between regional communities and CVWD is required to prevent depletion of this water supply, as identified in the 2010 CVWMP Update.

The population of the CVWD service area is projected to increase up to 383,300 people by 2045. This population increase will result in a substantial increase in water deliveries. New development projects within the CVWD service area that reach certain thresholds will be required to complete Water Supply Assessments. These WSAs for new project would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

Furthermore, through CVWD's 2020 UWMP process, the CVWD will meet all new demand for water due to projected population growth to the year 2045, through a combination of water conservation, recycling, and other ongoing groundwater management strategies. Based on the above information and the analysis contained in this section, CVWD would be able to supply the water demand of the Project, as well as future growth associated with the buildout of the City's General Plan. Cumulative impacts on water supply would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

⁴ City of Indio Development Services Department. *Final Environmental Impact Report for the City of Indio General Plan Update Indio, California SCH# 2015081021*. June 2019.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

5.16.2 WASTEWATER COLLECTION AND TREATMENT

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact wastewater and stormwater drainage systems operated and maintained by the Coachella Valley Water District (CVWD) and the local storm drain system maintained by the City of Indio (City) Public Works Department. This section incorporates information from the following study:

- Revised Pulte North Indio Development - Sanitation System Hydraulic Modeling Results. Coachella Valley Water District. January 24, 2023. Appendix M.1.

REGULATORY SETTING

Federal

Clean Water Act

Section 401 of the federal Clean Water Act (CWA) regulates the discharges of pollutants into “waters of the US” from any point or non-point source.

In 1972, the CWA was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The CWA focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. The CWA was amended again in 1987 to provide a framework for regulating municipal and industrial stormwater discharges. In November 1990, the US Environmental Protection Agency (US EPA) published final regulations that establish application requirements for specific categories of industries, including construction projects that encompass greater than or equal to 5 acres of land. The Phase II Rule became final in December 1999, thus expanding regulated construction sites to those greater than or equal to 1 acre. The regulations require that stormwater and non-stormwater runoff associated with construction activity which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4s) be regulated under an NPDES permit.

In the State of California, the program is administered by the local Regional Water Quality Control Board (RWQCB).

State

California Water Quality Laws

Under State law, the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) are responsible for implementing the federal CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), discussed below.¹

The Project Site is located within the purview of the Colorado River RWQCB (Region 7).

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal State program for water quality control.² The Porter-Cologne Water Quality Control Act also authorized the SWRCB to implement the provisions of the federal Clean Water Act. The act divided the State into nine RWQCB areas. Each RWQCB implements and enforces provisions of the Porter-Cologne Act and the CWA subject to policy guidance and review by the SWRCB. The Porter-Cologne Act requires each RWQCB to develop a Basin Plan for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory programs.

State Water Quality Control Board Order No. 2006-0003-DWQ

Order No. 2006-0003-DWQ, adopted by the State Water Resources Control Board on May 2, 2006, provides federal and State agencies, municipalities, counties, districts, and other public entities waste discharge requirements for sanitary sewer systems.

Urban Water Management Planning Act (2010)

The Urban Water Management Planning Act requires water suppliers in California, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 AFY of water, to prepare and adopt a plan every five years which defines their current and future water use, sources of supply, source reliability, and existing conservation measures. The Urban Water Management Planning Act requires that each water supplier prepare or update its UWMP every five years and submit it to the Department of Water Resources. The CVWD has adopted the 2020 Regional UWMP.

Sustainable Groundwater Management Act (2014)

In 2014, state legislature passed the Sustainable Groundwater Management Act (SGMA). SGMA requires the formation of local groundwater sustainability agencies (GSAs) by June 2017, which must assess conditions in their local water basins and adopt locally based management plans. The act provides five to seven years for GSAs to create a Groundwater Sustainability Plan and would have a 20-year implementation horizon with the opportunity for two five-year extensions if the agency were making progress towards sustainability. CVWD has been designated an "exclusive" Groundwater Sustainability

1 California Water Code (1969, as amended). *Porter-Cologne Water Quality Control Act*.

2 California Water Code. Sections 13000 et seq. *Porter-Cologne Act*.

Agency (GSA) over its service area by the California Department of Water Resources (DWR) in the Indio Subbasin. Desert Water Agency (DWA), Coachella Water Authority (CWA), and Indio Water Authority (IWA), were also designated GSAs in the Indio Subbasin over their respective service areas. The four agencies are working collaboratively to implement the Sustainable Groundwater Management Act (SGMA) in the Indio Subbasin. Currently the Coachella Valley Groundwater Basin is classified as a medium priority basin. Groundwater Sustainability Plans (GSPs) for critically over drafted high- and medium-priority basins were initially due to the California Department of Water Resources (DWR) by January 31, 2020. GSPs for the remaining high- and medium-priority basins were due to DWR by January 31, 2022.

The Indio Subbasin GSAs collaboratively prepared the 2022 Indio Subbasin Water Management Plan Update (also known as the 2022 Alternative Plan Update). On July 17, 2019, DWR determined that the Alternative Plan for the Indio Subbasin satisfies the objectives of SGMA and notified the Indio Subbasin GSAs that the Alternative Plan was approved, and that they would be required to submit an assessment and update of the Alternative Plan by January 1, 2022, and every five years thereafter. The GSAs adopted the 2022 Alternative Plan Update following a public hearing on December 7, 2021, and submitted it to DWR on December 29, 2021.

California Water Code, Title 22

The California Water Code requires the Department of Health Services (DHS) to establish water reclamation criteria. In 1975, the DHS prepared Title 22 of the California Code of Regulations³ to fulfill this requirement. Title 22 regulates production and use of recycled water in California by establishing three categories of recycled water:

- primary effluent, which typically includes grit removal and initial sedimentation or settling tanks;
- adequately disinfected, oxidized effluent (secondary effluent), which typically involves aeration and additional settling basins; and
- adequately disinfected, oxidized, coagulated, clarified, filtered effluent (tertiary effluent), which typically involves filtration and chlorination.

In addition to defining recycled water uses, Title 22 also defines requirements for sampling and analysis of effluent and requires specific design requirements for plants.

The Water Conservation Act of 2009 (SB X7-7)

The Water Conservation Act of 2009 (Senate Bill X7-7), enacted in November 2009, requires that all water suppliers increase their water use efficiency. There are 18 actions in this bill that DWR is responsible for. These actions include projects that affect urban water suppliers, agricultural water suppliers, or both. There are also a few projects that are DWR's reporting responsibilities.

3 California Code of Regulations. Title 22. Division 4 - Environmental Health.
[https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IE55EDC305B6011EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IE55EDC305B6011EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)). Accessed December 2022.

Completing some of these projects requires a public process, some require rulemaking, some require another process. Even for the projects that were only considered reporting, DWR often chose to work with stakeholders to make sure that affected suppliers and other stakeholders were well represented.

Five basic groups were formed and consulted to complete these projects:

- Agency Team - a team of other state and federal agencies' representatives.
- Commercial, Institutional, and Industrial Task Force (CII Task Force) - a team of different types of commercial, institutional, and industrial representatives, along with representatives from concerned non-profits and technical experts.
- Urban Stakeholder Committee (USC) - a team representing urban water suppliers, concerned non-profits, and technical experts.
- Agricultural Stakeholder Committee (ASC)- a team representing agricultural water suppliers, concerned non-profits, and technical experts.

Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans.

Regional and Local

Coachella Valley Water District

CVWD is the wastewater service provider for a good part of the Coachella Valley. CVWD provides domestic water, wastewater, non-potable water (recycled wastewater and Colorado River water), irrigation/drainage, and stormwater and groundwater management services to a major portion of the Coachella Valley. CVWD service area is approximately 1,000 square miles, mostly within the central and eastern Coachella Valley in Riverside County, but also extends into Imperial and San Diego counties. CVWD is governed and regulated under the Regional Board and is subject to its policies and regulations regarding proper wastewater disposal techniques.

Sanitary Sewer Management Plan

The Sanitary Sewer Management Plan (SSMP) describes the management of CVWD's sewer collection system and minimizes the number of sanitary sewer overflows. The SSMP is required by State Water Resources Control Board Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR 2006-0003) enacted May 2, 2006. The purpose of WDR 2006-0003 is to reduce sanitary sewer overflows (SSOs). CVWD's sanitary sewer overflows is not unusual or above average compared to other agencies in the State.

The SSMP will provide for a properly managed, operated and maintained sanitary sewer system. All portions of CVWD's wastewater collection systems will be managed, operated, and maintained to provide adequate capacity to convey the peak wastewater flows, to minimize the frequency of SSOs, mitigate the impacts that are associated with any SSO that may occur, meet all applicable regulatory notifications and reporting requirements, provide exceptional customer service to the residents and businesses served.

The SSMP is organized in ten chapters that covers items such as operation and maintenance programs, design and performance provisions, Overflow Emergency Response Plan, Fats, Oils and Grease (FOG) Control Plan, System Evaluation and Capacity Assurance Plan, monitoring, measurement and program modification, audits, and communications programs.

CVWD Standards and Guidelines

CVWD developed standards and design guidelines, which include the CVWD Development Design Manual (DDM). The most recent version of the DDM was updated on May 23, 2022.⁴ The DDM provides comprehensive procedural and technical requirements for the planning, design, and construction of CVWD service infrastructure for new development. CVWD Sanitation and Irrigation and Drainage Rules and Regulations are incorporated into the DDM, and they provide general provisions and standards for the development of wastewater systems in CVWD. CVWD Standard Specifications for the Construction of Sanitary Sewer Systems are also incorporated into the DDM. These provide specification standards for the development of new wastewater systems within the CVWD service area. Additionally, construction methods, materials and disposal of products would also be subject to current standards established by the South Coast Air Quality Management District, Regional Water Quality Control Board and any other local, State, or federal agencies having authority in their respective jurisdictions.

CVWD Sanitation Fees

CVWD Ordinance No. 1373 requires new developments to pay for capital construction costs for new sanitation facilities through the Sanitation Capacity Rate (SCR). Wastewater flows are determined on a case-by-case basis and are expressed in terms relative to the discharge of an EDU. The SCR was created as a funding mechanism for the construction of wastewater collection system and wastewater treatment infrastructure.

City of Indio General Plan

Public Services Element

The purpose of the Public Services Element is to inform and guide future investment in infrastructure and public facilities in the City of Indio. This section includes guidelines for maintaining a safe, efficient, and adequate wastewater system to meet the needs of current and future populations.

Goal IE-3: Wastewater Collection. Wastewater facilities that effectively collect and treat wastewater.

IE-3.4: **Greywater systems in new development.** Encourage new residential development to provide easy implementation of greywater systems that redirect water from washbasins, showers, and tubs for use in toilet flushing, irrigation, and other non-potable uses.

4 CVWD. *Development Design Manual*. Revised May 23, 2022. <http://www.cvwd.org/208/Development-Design-Manual>. Accessed December 2022.

City of Indio Municipal Code

In order to address the demands of new development on public facilities and utilities within the City, the City of Indio City Council adopted Ordinance No. 1463 on May 17, 2006, which is codified in the Indio Municipal Code (IMC) Section 33.065.⁵ The purpose of the “Development Impact Fee” is to ensure that new development pays its fair share for services that are needed to meet demand. In addition to any other fee prescribed by law, every person constructing any development project in the City pays a storm drain facilities fee used by the City to defray the costs of constructing planned drainage facilities for the removal of surface waters and storm waters from local or neighborhood drainage areas established pursuant to the master plan of drainage.

IMC Chapter 57 identifies the rules and regulations under which the City will authorize connections and provide sewer service to customers.⁶ The chapter authorizes the establishment of fees for sewer connections, service, and inspections, establishes prohibitions on discharge of certain materials into the sewer system, provides specific regulations applicable to sewers, and identifies enforcement mechanisms for non-compliance.

Further, IMC Chapter 55 controls and regulates discharge to the municipal storm drain to ensure the future health, safety, and general welfare of Indio citizens.⁷ This chapter outlines requirements to protect and enhance the quality of City water courses, water bodies, groundwater, and wetlands in a manner pursuant and consistent with the federal Clean Water Act and Porter-Cologne Water Quality Control Act.

IMC Chapter 156 includes regulations for subdivisions in order to regulate and control the division of land within the City and supplement the provisions of the Subdivision Map Act concerning design, improvements, for and content of subdivision maps.⁸ This chapter includes provisions to ensure adequate utilities, including water, wastewater, and storm water facilities.

ENVIRONMENTAL SETTING

Existing Conditions

Wastewater Service System

The Project Site is located in the City of Indio (City) within the service boundary of CVWD for wastewater conveyance and treatment. Two water recycling plants (WRPs) serve the City: one owned by Valley Sanitary District and one owned by CVWD.⁹ VSD’s WRP treats approximately 96 percent of Indio’s wastewater and CVWD’s WRP treats the remainder. The CVWD plant that serves the City (WRP-7) is located at Avenue 38 and Madison Street, adjacent to the northeast corner of the Project Site. The WRP-

5 IMC. Title III. Chapter 33. Section 33.065.

6 IMC. Title V. Chapter 57. *Sanitary Sewer Collection and Treatment*.

7 IMC. Title V. Chapter 55. *Stormwater Management and Discharge Control*.

8 IMC. Title XV. Chapter 156. *Subdivision Regulations*.

9 City of Indio. *General Plan Update EIR*. “Chapter 4.16 Utilities and Service Systems.” Page 4.16-8.

7 includes a 5.0 MGD secondary treatment facility with current tertiary treatment capacity of 2.5 MGD (2,800 AFY). The off-site pumping capacity of the WRP-7 recycled water pump is approximately 4,500 gpm. In the summer, peak demands exceed the pumping capacity of 4,000 gpm, which typically serves Sun City and 500 gpm which serves the community of Shadow Hills. The recycled water distribution systems serve a total of 20 customer accounts through 31 miles of pressurized distribution pipelines. This plant is a tertiary treatment facility and the effluent produced is recycled for non-potable uses for CVWD customers. WRP-7 generates recycled water for irrigation of golf courses and large landscaped areas. There are currently no wastewater services provided by the City.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine the significance of impacts related to wastewater service and storm drain facilities (Appendix G of the CEQA Guidelines):

Threshold 5.16.2-1: Would the project require or result in the relocation or construction of new or expanded wastewater treatment, or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?

Threshold 5.16.2-2: 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?

Methodology

The analysis provided below is based on the information provided by utility providers and adopted planning documents.

Project Impacts

Threshold 5.16.2-1: Would the project result in the relocation or construction of new or expanded wastewater treatment or storm water drainage facilities, the construction or relocation of which could cause significant environmental impacts?

Wastewater from the area the Project site is located in is treated at CVWD Water Reclamation Plant 7 (WRP-7), located immediately north of the Project site on the corner of Avenue 38 and Madison Street. WRP-7 has an existing wastewater treatment capacity of 5 MGD, and an average daily flow of approximately 2.9 MGD. According to the 2020 Regional UWMP, WRP-7 treated 3,236 AF of wastewater in 2020.

Wastewater from the portion of the Sun City Shadow Hills Community located immediately south of the Project site drains south to CVWD Lift Station 81-07, located near Avenue 42 and Madison Street. From this lift station, wastewater is pumped north in a force main in Madison Street and Avenue 38 to WRP-7. An existing 27-inch gravity sewer pipeline in Avenue 38 conveys wastewater from the area to WRP-7.

5.16.2 Wastewater Collection and Treatment

CVWD completed hydraulic modeling of the existing sewer system and identified three options to provide sewer service to the Project site.¹⁰ The first option would collect wastewater from the Project and convey it south through new and existing sewer lines to CVWD Lift Station 81-07. An extension of the existing sewer line in Jefferson Road south in Varner Road between Camino Santa Elise and Lift Station 81-07 would be built to redirect flows from existing sewer lines located immediately south of the Project to free up capacity in these lines to convey wastewater from the Project. This option would also require the upsizing of existing sewer lines located south of the Project site and modifications to increase the capacity of Lift Station 81-07 from 2.2 MGD to 3.3 MGD.

The second option would convey wastewater north through the Project to the existing 27-inch gravity sewer pipeline in Avenue 38 to WRP-7. This existing gravity line has capacity to accommodate wastewater from the Project.

The third option would involve conveying a portion of the wastewater from the Project to the south to Lift Station 81-07 and a portion north to the existing gravity sewer in Avenue 38. This option would minimize the improvements needed to existing sewer lines located south of the Project site and Lift Station 81-07.

All three options would involve the construction of new sewer facilities and/or the upsizing of existing sewers in existing streets or new streets and upsizing of Lift Station 81-07. For this reason, none of these options would result in any additional significant environmental impacts as all construction would occur in areas previously disturbed to construct existing sewer and street improvements or within new streets to be constructed as part of the Project. All improvements related to wastewater service would be completed in accordance with City and CVWD standards which would preclude any interruptions to existing service for the surrounding properties.

The City's General Plan Land Use and Urban Design Element, and Infrastructure and Public Facilities Elements include overarching goals and policies supporting effective wastewater treatment facilities. These policies would support development of adequate wastewater capacity to serve future demand associated with growth forecast under the GPU. Furthermore, policies related to encouraging the use of greywater, are included Policy IE-3.4. In addition, all future developers would be required to pay development impact fees as outlined in Chapters 33 and 57 of the City Municipal Code, which would contribute to the necessary costs required to upgrade and maintain operation of the WRF. Growth forecast under the City's General Plan may require new wastewater facilities to be constructed during the plan's horizon.¹¹ However, the environmental impacts of any future expansion would be speculative since the nature, magnitude, and location of any new or expanded facilities is not known. Future wastewater infrastructure projects and development projects that necessitate the construction of new

¹⁰ CVWD. Revised Pulte North Indio Development - Sanitation System Hydraulic Modeling Results. January 24, 2023. See Appendix M.

¹¹ City of Indio. *General Plan Update EIR (2019)*. "Chapter 4.16 Utilities and Service Systems." Pages 4.16-19 and 4.16-20.

or improved wastewater facilities would be required to undergo environmental review pursuant to CEQA that would evaluate potential environmental impacts associated with the construction of such facilities.

Future development consistent with the City's General Plan goals and policies would also be required to comply with Section 55.26 of the Municipal Code, which requires new development and redevelopment to control the rate and volume of storm water runoff and installation of storm water infrastructure such as retention structures, subsurface areas, cisterns or other structures, at the discretion of the City Director of Public Works or designee. Goals and policies of the City's General Plan Land Use and Urban Design, and Infrastructure and Public Facilities Elements would support provision of adequate storm water facilities in the City.

Therefore, existing wastewater treatment facilities would have sufficient capacities to accommodate wastewater generated by the Project. While the Project would require the construction of new wastewater treatment facilities and the expansion of existing facilities, the construction of these wastewater facilities would not have any significant adverse environmental effects.

Threshold 5.16.2-2: Would the project result in 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 providers existing commitments?

The total projected water demand for the Project is approximately 1,096 AFY, consisting of approximately 463 AFY of outdoor recycled water demand and approximately 633 AFY of potable water demand or 2.9 acre-feet per acre.¹²

The Project would add 0.98 MGD of additional wastewater to WTP-7 for treatment, increasing the average daily flow to approximately 3.9 MGD. This increase is within the 5 MGD treatment capacity of WRP-7. Approximately 60 percent of the wastewater treated at this facility receives tertiary treatment for reuse and is used to irrigate golf courses and other landscape areas. No expansion of WRP-7 is necessary to treat the wastewater that would be generated by the Project.

CUMULATIVE IMPACTS

The Project would result in an increase to wastewater flows. However, the 2020 Regional UWMP projects wastewater of WRP-7 and WRP-10¹³ to 16,800 AFY (12.89 MGD) in year 2045. As such, the Project's net wastewater generation of approximately 0.98 MGD would account for approximately 7.60 percent of the cumulative growth and is within the capacity forecasted in the City's General Plan Update EIR. Thus, there would be additional capacity to treat Project and cumulative project wastewater generation flows.

12 MSA Consulting Inc. *Water Supply Assessment (WSA) and Water Supply Verification for the Proposed Desert Retreat*. January 2023. See **Appendix N**.

13 WRP-10 is located in the City of Palm Desert and is an 18.0 MGD secondary treatment facility with a current tertiary treatment capacity of 15 MGD (16,800 AFY). WRP-10 is the only other recycled water plan that delivers recycled water exclusively for irrigation of golf courses, municipal, and HOA landscaping.

5.16.2 Wastewater Collection and Treatment

Similar to the Project, each related project listed in **Section 4.0: Environmental Setting**, would be required to analyze system treatment capacity prior to approval. Implementation of the proposed Project would not result in a cumulatively considerable contribution to this cumulative impact.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

5.16.3 DRY UTILITIES (ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATIONS)

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential for the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to impact local dry utilities (electricity, natural gas, and telecommunications). Dry utilities (electricity, natural gas, and telecommunications) in this discussion are identified by agency facility maps and would require field verification upon implementation of the Project.

REGULATORY SETTING

Federal

As mentioned previously, the Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. The Energy Policy Act of 2005 gave FERC additional responsibilities in this capacity. The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states.

State

Assembly Bill 32 and Related Legislation

AB 32, the Global Warming Solutions Act of 2006, requires a sharp reduction of GHG emissions to 1990 levels by 2020, which is consistent with the California Climate Action Team, which works to coordinate statewide efforts to implement global warming emission reduction programs and the state's Climate Adaptation Strategy after the passing of AB 32. To achieve these goals, AB 32 mandates that CARB establish a quantified emissions cap and institute a schedule to meet the cap; implement regulations to reduce Statewide GHG emissions from stationary sources consistent with the California Climate Action Team strategies; and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. To reach the reduction targets, AB 32 requires CARB to adopt—in an open, public process—rules and regulations that achieve the maximum technologically feasible and cost-effective GHG reductions.

Climate Change Scoping Plan

CARB approved a Climate Change Scoping Plan (Scoping Plan) on December 11, 2008, as required by AB 32. The Scoping Plan proposed a “comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

energy sources, save energy, create new jobs, and enhance public health.”¹ The Scoping Plan had a range of GHG reduction actions, including direct regulations; alternative compliance mechanisms; monetary and nonmonetary incentives; voluntary actions; market-based mechanisms, such as a cap-and-trade system; and an AB 32 implementation regulation to fund the program.

The Scoping Plan called for a “coordinated set of strategies” to address all major categories of GHG emissions.² Transportation emissions were to be addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard, and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to implement energy efficiency practices. Utility energy supplies will change to include more renewable energy sources through implementation of the Renewables Portfolio Standard. Established in 2002 under Senate Bill (SB) 1078, the California Renewables Portfolio Standards (RPS) were accelerated in 2006 under SB 107, which required that, by 2010, at least 20 percent of electricity retail sales come from renewable sources. In April 2016, the California Energy Commission (CEC) updated the RPS pursuant to SB 350, intended to set the new target 50 percent renewables by 2030.³ This will be complemented with an emphasis on local generation, including rooftop photovoltaics and solar hot water installations. Additionally, the Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicated that substantial savings of electricity and natural gas would be accomplished through improving energy efficiency.

Subsequent to the adoption of the Scoping Plan, a lawsuit was filed challenging CARB’s approval of the Scoping Plan Functional Equivalent Document (Supplemental FED). On May 20, 2011 (Case No. CPF-09-509562), the court found that the environmental analysis of the alternatives in the Supplemental FED to the Scoping Plan was not sufficient under CEQA. CARB staff prepared a revised and expanded environmental analysis of the alternatives, and the Supplemental FED to the Scoping Plan was approved on August 24, 2011. The Supplemental FED to the Scoping Plan indicated that the potential exists for adverse environmental impacts associated with implementation of the various GHG emission reduction measures recommended in the Scoping Plan.

CARB updated the Scoping Plan in May 2014 (2014 Scoping Plan). The 2014 Scoping Plan⁴ adjusted the 1990 GHG emissions levels to 431 million metric tons of carbon dioxide equivalents (MMTCO₂e); the updated 2020 GHG emissions forecast is 509 MMTCO₂e, which credited for certain GHG emission reduction measures already in place (e.g., the RPS). The 2014 Scoping Plan also recommended a 40

1 California Air Resources Board (CARB). *Climate Change Scoping Plan: A Framework for Change*. December 2008. https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

2 CARB. *Climate Change Scoping Plan*. p. ES-7.

3 California Energy Commission (CEC). *Enforcement Procedures for the Renewables Portfolio Standards for Local Publicly Owned Electric Utilities: Amended Regulations*. April 12, 2016. <http://www.energy.ca.gov/2016publications/CEC-300-2016-002/CEC-300-2016-002-CMF.pdf>. Accessed November 2022.

4 CARB. *First Update to the Climate Change Scoping Plan: Building on the Framework*. May 2014.

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

percent reduction in GH emissions from 1990 levels by 2030, and a 60 percent reduction in GHG emissions from 1990 levels by 2040.

The 2017 Scoping Plan,⁵ approved on December 14, 2017, builds on previous programs, and takes aim at the 2030 target established by the 2016 SB 32 (Pavley), which is further discussed below. The 2017 Scoping Plan outlines options to meet California's aggressive goals to reduce GHGs by 40 percent below 1990 levels by 2030. In addition, the Scoping Plan incorporates the State's updated RPS requiring utilities to procure 50 percent of their electricity from renewable energy sources by 2030. It also raises the State's Low Carbon Fuel Standard and aims to reduce emissions of methane and hydrofluorocarbons by 40 percent from 2013 levels by 2030 and emissions of black carbon by 50 percent from 2013 levels.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. CPUC is responsible for regulating electric utility rates, electric power procurement and generation, some electric infrastructure, ratepayer-funded energy efficiency programs, and other areas. The CPUC evaluates the necessity for additional power generation by the regulated utilities in California in both the long and short term, accomplished using public input, data provided by the utilities, the California Energy Commission, the California Independent System Operator (CAISO), and following the regulations of the Commission, the Public Utilities Code, and FERC. CPUC has primary ratemaking jurisdiction over the funding of distribution related expenditures generally for power lines of 66 kV (kilovolts) or less. While CPUC does not have ratemaking responsibility for transmission lines, CPUC does have a substantial role in permitting transmission and substation facilities.

CPUC regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering, and billing. Additionally, CPUC regulates telecommunications and broadband operations and infrastructure in the State, being responsible for licensing, registration, and the processing of tariffs on local exchange carriers, competitive local carriers, and non-dominant interexchange carriers. It is also responsible for registration of wireless service providers and franchising of video service providers, among other duties.

Senate Bill 97

Senate Bill (SB) 97, approved on July 10, 2017, requires the Office of Planning and Research (OPR) to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including but not limited to effects associated with transportation and energy consumption.⁶ These guidelines were required to be transmitted to the Natural Resources Agency by July 1, 2009, to be certified and adopted

5 CARB. *California's 2017 Climate Change Scoping Plan*. November 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed December 2022.

6 California Legislative Information. Senate Bill No.97. August 24, 2007. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB97. Accessed November 2022.

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

by January 1, 2010. OPR submitted the Proposed Draft Guideline Amendments for Greenhouse Gas Emissions to the Secretary for Natural Resources on April 13, 2009. The California Natural Resources Agency conducted formal rulemaking in 2009 on December 30 of that year and adopted the Guideline Amendments, which address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment.

The Natural Resources Agency is required to periodically update the guidelines to incorporate new information or criteria established by CARB pursuant to AB 32. SB 97 applies retroactively to any environmental impact report, negative declaration, mitigated negative declaration, or other document required by CEQA that has not yet been certified.

Senate Bill 1368

To limit carbon emissions associated with electrical energy consumed in California, SB 1368 prohibits purchase arrangements for energy for periods of longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. A coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants. Accordingly, SB 1368 effectively prevents California's utilities from investing in, financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, implementation of SB 1368 is anticipated to reduce GHG emissions associated with California's energy demand by effectively prohibiting California utilities from purchasing power from out-of-state producers that cannot satisfy the required performance standard for GHG emissions.

Regional and Local

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses more than 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and State law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives, including the Regional Transportation Plan (RTP) and Sustainable Communities Strategies (SCS) component pursuant to State law.

Coachella Valley Association of Governments Desert Cities Energy Partnership

The Coachella Valley Association of Governments (CVAG) is a sub-regional organization within the Southern California Association of Governments (SCAG). CVAG operates as part of larger jurisdictional or regional teams within the Coachella Valley, made up of ten cities, Riverside County, and two Native American Indian tribes. CVAG initiated the Desert Cities Energy Partnership with SCE and SoCalGas through an Agreement effective in January 2010. The First Amendment to the agreement between CVAG and the utilities to continue the partnership through December 31, 2014, was authorized by the CVAG Executive Committee in December 2012. Since then, the Second through Fifth Amendments to the agreement extended the Partnership each year and provided an authorized budget. The Fifth Amendment was approved to extend the program to December 2018, including a reduction in the SCE budget amount for the Desert Cities Energy Partnership. SCE, SoCalGas, and the CPUC continue to evaluate the benefits as well as the future of these partnerships.

The goal of the Desert Cities Energy Partnership is “to help local governments effectively lead their communities to increase energy efficiency, reduce greenhouse gas emissions, protect air quality and ensure that their communities are more livable and sustainable.” The partnership provides performance-based opportunities for the Coachella Valley jurisdictions to demonstrate energy efficiency leadership in our communities through energy saving actions.

The Coachella Valley Energy Commission, created by IID, is tasked with providing immediate and diverse local representation by Coachella Valley stakeholders for the unique energy needs of the greater Coachella Valley portion of the IID’s energy service area. Its focus includes the development of a long-term strategic plan for continued energy service to the Coachella Valley following the 2033 expiration of the 99-year lease between IID and the Coachella Valley Water District (CVWD).

City of Indio General Plan

The City of Indio General Plan, Infrastructure and Public Facilities Element addresses utility facilities that are utilized by the City. The purpose of the Infrastructure and Public Facilities Element is to inform and guide future investment in infrastructure and public facilities in the City of Indio. The Element also identifies standards for infrastructure relative to population or land use intensity and identifies courses of action and programs that provide the means to implement the goals and policies of the Element.

The Element lists goals, policies, and programs regarding public utilities in the City. The Infrastructure and Public Facilities Element includes the following information related to dry utilities services in the City:

Goal IE-4: **Energy.** Efficient electricity and natural gas utilities that ensure the availability of these resources for future generations.

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

IE-4.4: **Below-ground utilities.** Phase out and replace overhead distribution lines with subsurface lines that will not be affected by fallen trees and branches during windstorms.

IE-4.5: **Tree trimming.** Enforce the national guidelines and IID landscape guidelines on tree trimming and vegetation management around electric transmission and communication lines to prevent or reduce the potential for felled branches or trees to cause power outages and disrupted communications.

Goal IE-5: **Telecommunications.** High-quality telecommunication services and utilities to meet the needs of residents and businesses.

IE-5.2: **Telecommunication facility siting.** Ensure that siting of telecommunication facilities provides efficiency and quality services to emergency response providers in the City.

IE-5.4: **Visual impacts.** Power and other transmission towers, cellular communication towers, and other viewshed intrusions shall be designed and sited to minimize environmental hazards and visual impacts.

City of Indio Municipal Code

New construction within the City is subject to a “Development Impact Fee,” codified in Chapter 33 of the Indio Municipal Code (IMC). This chapter sets a policy for the requirement of an imposed fee on new construction in order to address the demands of new development on public facilities and utilities within the City. The purpose of the “Development Impact Fee” is to ensure that new development pays its fair share for services that are needed to meet demand.

ENVIRONMENTAL SETTING

Existing Conditions

Utilities and service systems are made available by a range of private companies, private enterprises acting as public utilities, and public agencies in the City of Indio (City). Major utilities and service systems providers in Coachella Valley include the following: the Coachella Valley Water District (CVWD), Southern California Edison (SCE), Imperial Irrigation District (IID), the Southern California Gas Company (SoCalGas), Frontier, and Spectrum.

Section 5.2: Air Quality, Section 5.7: Greenhouse Gas Emissions, and Section 5.8: Hydrology and Water Quality of this Draft EIR provide greater detail for estimated utility usage and associated environmental impacts. This section provides focused summaries of information found throughout this Draft EIR associated with the capacities of and anticipated Project-generated demand on electricity, natural gas, and telecommunications infrastructure. Energy use reductions are associated with efficient infrastructure; therefore, this topic is also discussed in this section.

Electricity

Southern California Edison (SCE) is the primary electric service provider to the City and its sphere of influence (SOI), with the Imperial Irrigation District (IID) providing electric service to a portion thereof.

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

These providers are regulated by the California Public Utilities Commission (CPUC) and Federal Energy Regulatory Commission (FERC). Electrical power is generated by a combined system of gas and coal production, oil, hydroelectricity, nuclear production, solar and wind technology, and energy purchase.

The Project Site is within the IID service area. The IID energy service territory covers 6,471 square miles, including all of Imperial County along with parts of Riverside and San Diego counties.⁷ The IID planning area used approximately 3,516 GWh of electricity in 2021, of which 1,906 GWh were derived from residential uses⁸ The CEC estimates that electricity consumption within the IID planning area will be approximately 4,320 GWh annually by 2032, when the Project would be fully built out.⁹

The nearest transmission line to the Project Site includes an east/west 92 kilovolt (kV) line along 40th Avenue, directly south of the Project Site.¹⁰ No electricity is currently used on the vacant Project Site.

Natural Gas

According to the California Energy Commission (CEC), approximately one third of energy consumed in California is natural gas. Nearly 45 percent of the natural gas burned in California was used for electricity generation, and much of the remainder consumed in the residential (21 percent), industrial (25 percent) and commercial (9 percent) sectors.¹¹

SoCalGas, a publicly regulated utility, is the natural gas service provider to the City. SoCalGas has regional and local distribution lines in the City and its SOI and provides natural gas for space heating, domestic and commercial hot water, cooking, and air conditioning applications. Together, CPUC and FERC regulate SoCalGas' natural gas distribution and conveyance activities. FERC is an independent federal agency that regulates the interstate transmission of electricity, natural gas, and oil. CPUC regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering, and billing. The availability of natural gas services is dependent upon current conditions of gas supply and regulatory policies. The Project Site is within the SoCalGas service area and is currently undeveloped with no natural gas facilities onsite.

Telecommunications

Telecommunications services in the City are provided by various companies. Spectrum provides cable service, and telephone service, formerly provided by Verizon, is now offered by Frontier

7 Imperial Irrigation District (IID). "Energy Service Maps." <https://www.iid.com/energy/about-iid-energy/energy-service-maps>. Accessed November 2022.

8 IID. *Imperial Irrigation District 2021 Annual Report*. <https://www.flipsnack.com/58E7CB99E8C/2021-iid-annual-report.html>. Accessed November 2022.

9 CEC. "California Energy Demand Forecast, 2021-2035." <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report/2021-1>. Accessed November 2022.

10 CEC. "Electric Infrastructure Map." <https://cecgis-caenergy.opendata.arcgis.com/app/ad8323410d9b47c1b1a9f751d62fe495>. Accessed December 2022.

11 CEC. "Supply and Demand of Natural Gas in California." <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california>. Accessed December 2022.

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Communications. Both companies are regulated by CPUC. A wide array of products and telecommunication services for residential and commercial uses are offered by both, including internet services, wireless services, television technology utilizing digital fiber optic technology, and satellite technology. A variety of telecommunication facilities exist along roadways surrounding the Project Site, described as follows. The Project Site would be served by Spectrum for cable television access and Frontier for telephone access. The Site is currently undeveloped with no telecommunications facilities on site.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines include thresholds to determine whether the project would have a significant impact related to utilities (Appendix G of the CEQA Guidelines). Appendix G provides that a project would have a significant environmental impact related to electrical, natural gas, or telecommunications facilities, if it would:

Threshold 5.16.3-1: Require or result in the relocation or construction of new or expanded power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Methodology

Information regarding the current availability of utilities was gathered to determine if the existing capacity is sufficient to serve the Project.

Project Impacts

Threshold 5.16.3-1: Would the project require or result in the relocation or construction of new or expanded electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

As discussed previously, the Project Site is surrounded by existing electrical, natural gas, and telecommunications infrastructure. IID has determined that additional electrical services facilities are needed to provide service to the proposed Project, as stated in a Will Serve Letter provided by IID.¹² As described in **Section 3.0: Project Description**, IID will provide service to the initial phase of development from existing facilities. The additional power load for subsequent phases of the Project would require IID to construct a new substation with two 25 MVA (megavoltampere) transformer banks. A 315 foot by 315-foot site is required for this new substation. A site for this new substation is provided within the Project site east of Burr Street. An alternative site for this new substation is located on the northwest corner of Burr Street and Avenue 40. IID is reviewing both sites. Both sites are evaluated in each topical section of this Draft EIR. Biological and Cultural Resource investigations conducted for the proposed Project and

12 IID. "Feasibility Study and Will Serve Letter." June 21, 2022. See **Appendix M**.

5.16.3 Dry Utilities (Electricity, Natural Gas, and Telecommunications)

summarized in **Section 5.3: Biological Resources** and **Section 5.4: Cultural Resources**, in this Draft EIR, address both sites under consideration for this new substation. Based on the information and analysis in this Draft EIR, development of this new substation on either site would not result in significant impacts.

In addition, construction of transmission and distribution line extensions, distribution getaways and distribution feeders would be required to provide service to the Project. Distribution lines from the new substation would go directly into the Project Site. As such, IID may also add distribution lines within its rights-of-way, so that the new substation can be used to increase resiliency of IID's existing system and potentially serve other planned growth consistent with the City's General Plan. These modifications to existing facilities or new facilities, including new distribution lines, would occur in existing IID right-of-way, which consist of areas previously disturbed for development or streets or existing IID facilities. For this reason, construction of these additional facilities would also not result in significant impacts.

Existing utility infrastructure would require physical determination prior to Project implementation, and any further need for infrastructure upgrades would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for the Project through the City and the appropriate regulatory agencies and utility providers. Construction impacts associated with the installation of the on-site and off-site connections are expected to be confined to trenching and related construction activities would be temporary and limited. All improvements related to utility services would be completed in accordance with City and provider standards.

Further, as discussed throughout this Draft EIR, the Project would incorporate numerous energy efficiency measures and design features to enhance efficiency in all aspects of a building's life-cycle. These designs would increase the structure's energy efficiency, and overall sustainability. As discussed in **Section 5.5: Energy**, the Project's expected energy and natural gas consumption would be less than significant. Title 24 requirements, as well as energy efficiency requirements related to achieving the SB 350 goals, would help to reduce Project-related energy demand and resultant impacts on the existing distribution systems. Additionally, IID has also determined that an extension of electrical facilities would be feasible for the proposed Project.¹³ Further, submittal, review, and approval of Project plans through the City and relevant utility providers would ensure future utility demands would be manageable. Any further need for infrastructure upgrades would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for the Project through the City and the appropriate regulatory agencies and utility providers. The Project is not anticipated to require or result in the relocation or construction of new or expanded natural gas, or telecommunications facilities. Impacts would be less than significant.

13 IID. "Feasibility Study and Will Serve Letter." June 21, 2022. See **Appendix M**.

CUMULATIVE IMPACTS

As discussed previously, the Project Site is surrounded by existing electrical, natural gas, and telecommunications infrastructure. As described above, the proposed electrical substation and related improvements will not have any significant adverse effects that are not mitigated through the project's mitigation measures. Other existing utility infrastructure would require physical determination prior to implementation any project and any further need for infrastructure upgrades would similarly be accomplished through the required design review and approval of natural gas, and telecommunication plans for projects through the City, respective nearby jurisdictions, and the appropriate regulatory agencies and utility providers. Similarly, related projects, as listed in **Section 4.0: Environmental Setting**, would also be anticipated to comply with these requirements in an area that is largely built out. All other projects in the area will be required to complete appropriate CEQA review and ensure that any substations or other electrical infrastructure do not have significant, unmitigated impacts. Therefore, cumulative impacts with respect to infrastructure would be less than significant.

MITIGATION MEASURES

No mitigation measures are necessary.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) addresses the potential impacts of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) to the capacity of local landfills and transfer stations. This section also discusses the active landfills, transfer stations, and diversion and recycling programs that currently serve regional solid waste disposal service needs.

REGULATORY SETTING

Federal

Resource Conservation and Recovery Act (RCRA)

This law was enacted in 1976 and is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. The U.S. Environmental Protection Agency (US EPA) oversees waste management regulation pursuant to Title 40 of the Code of Federal Regulations. Under RCRA, however, states are authorized to carry out many of the functions of the federal law through their own hazardous waste programs and laws, if they are at least as stringent (or more so) than the federal regulations. Thus, the California Department of Resources Recycling and Recovery (CalRecycle) manages the State of California’s solid waste and hazardous materials programs pursuant to US EPA approval.

State

CalRecycle

This state agency performs a variety of regulatory functions pursuant to CCR Title 27 and other rules. Among other things, CalRecycle sets minimum standards for the handling and disposal of solid waste designed to protect public health and safety, as well as the environment. It is also the lead agency for implementing the State of California municipal solid waste program deemed adequate by the US EPA for compliance with RCRA.

California Green Building Standards Code

Section 5.408 (Construction Waste Reduction, Disposal, and Recycling) of the California Green Building Standards Code (CALGreen; Title 24, California Code of Regulations, Part 11) requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. CALGreen is updated on a three-year cycle; the 2019 CALGreen took effect on January 1, 2020.

Assembly Bill 341

Assembly Bill (AB) 341 (Chapter 476) increased the statewide solid waste diversion goal to 75 percent by 2020. The law, passed in 2011, mandates recycling for businesses producing four or more cubic yards of solid waste per week. Under the law, City businesses must separate recyclables from trash and then either subscribe to City recycling services, self-haul their recyclables, or contract with a permitted private recycler.

Assembly Bill 939

AB 939 (California Integrated Solid Waste Management Act of 1989; Public Resources Code §§ 40050 et seq.) established an integrated waste-management system that focuses on source reduction, recycling, composting, and land disposal of waste. AB 939 requires every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates; actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

AB 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

AB 1826

In October of 2014, Governor Jerry Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the State implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Regional and Local

Riverside County Integrated Waste Management Plan

The RCWMD manages and oversees compliance with a variety of permits necessary for the operation of their active landfills in Riverside County. The Countywide Integrated Waste Management Plan (CIWMP) outlines and codifies the goals, policies, and programs the County of Riverside and its cities are implementing to create an integrated and cost-effective waste management system that complies with

the provisions of AB 939 and its diversion mandates. The CIWMP is composed of the Riverside Countywide Summary Plan and the Riverside Countywide Siting Element, a Source Reduction and Recycling Element (SRRE), a Nondisposal Facility Element (NDFE), and a Household Hazardous Waste Element (HHWE) for the County and cities within the County. Each component provides information regarding solid waste and hazardous waste disposal and recycling.

City of Indio Municipal Code

In accordance with the California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939) requirement that each local jurisdiction in the state divert 50% of discarded materials (base year 1990, state methodology) from landfill by December 31, 2000, and thereafter maintain or exceed that diversion rate, construction within the City of Indio is subject to Title V, Chapter 51, Section 51.47 “Recycling and Diversion of Debris from Construction and Demolition” of the Indio Municipal Code (IMC) which outlines the City’s requirements related to solid waste practices. These policies include measures requiring project applicants as a condition to the issuance of any development, building, grading or demolition permit to develop a Project Construction and Demolition Debris Plan and mandating materials reuse and waste diversion best efforts, among other policies; and to ensure compliance throughout the duration of the construction

ENVIRONMENTAL SETTING

Existing Conditions

Solid Waste Services

The Riverside County Waste Management Department (RCWMD) is responsible for the efficient and effective landfill disposal of non-hazardous county waste. To accomplish this, the RCWMD operates five active landfills and administers a contract agreement for waste disposal at the private El Sobrante Landfill.¹ RCWMD also oversees several transfer station leases, as well as a number of recycling and other special waste diversion programs.

All of the active landfills currently located in Riverside County are rated as Class III landfills according to Title 27 of the California Code of Regulations (CCR).² Such landfills only accept nonhazardous, municipal solid waste. Franchise solid waste collection companies are granted permits to collect commercial and residential waste throughout unincorporated Riverside County under Riverside County’s general operating authority. In addition, County landfills accept waste collected in incorporated cities. Within these cities, solid waste is either collected by the city as a municipal service or collected by private firms pursuant to a franchise agreement with the city.

Solid waste not dumped directly in a landfill is deposited temporarily in several transfer stations throughout Riverside County. The region’s transfer stations play a vital role in accommodating throughput

1 Riverside County Department of Waste Resources. “Landfills and Transfer Stations.” <https://www.rcwaste.org/disposal/hours>. Accessed October 2022.

2 California Code of Regulations. Division 2. Title 27. Chapter 3. Subchapter 2. Article 3. Section 20260.

to landfills, serving as collection and separation points for solid waste and recyclables. Transfer stations also help reduce traffic congestion and provide flexibility for hauling waste to distant landfills or processing plants outside the region when appropriate.

Solid waste services are provided to the City of Indio (City) by Burrtec Waste and Recycling Services (Burrtec).³ Under Burrtec’s contract with the City, solid waste generated by the Project would be transported to the Indio / Coachella Transfer Station and then enter the Riverside County waste stream, and be sent to one of the Riverside County landfills in unincorporated Riverside County.⁴ The following **Table 5.16.4-1: Existing Riverside County Landfills**, outlines estimated closure dates and capacities of landfills that can serve the City and proposed Project.

Landfill Sites	Estimated Closure Year	Permitted Capacity (tons/day)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
Badlands	2022	4,000	34,400,000	12,700,000
Blythe	2047	400	6,229,670	3,834,470
Desert Center	2087	60	115,341	35,714
El Sobrante	2045	16,054	184,930,000	145,530,000
Lamb Canyon	2029	5,500	38,935,653	19,242,950
Mecca Landfill II	2098	400	452,182	6,371
Oasis	2055	400	1,097,152	433,779
Total			266,159,998	181,783,284

Source: City of Indio General Plan Update EIR. Chapter 4.16 Utilities and Service Systems. Table 4.16-5. Available at: <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022; CalRecycle - 2017.

The Project Site is currently vacant and undeveloped and does not generate solid waste.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

The CEQA Guidelines includes the following thresholds to determine the significance of impacts related to utilities, including the disposal of solid waste (Appendix G of the CEQA Guidelines):

3 City of Indio. Public Works Department. “solid waste (trash).” <https://www.indio.org/departments/public-works-department/solid-waste-trash>. Accessed October 2022.

4 City of Indio. *General Plan Update EIR*. Page 4.16-9. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022.

- Threshold 5.16.4-1: Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- Threshold 5.16.4-2: Would the project comply with federal, State, and local management and reduction statues and regulations related to solid waste?

Methodology

Information regarding the current intake capacity of each facility was gathered to determine if the existing transfer stations and landfills in Riverside County could accommodate solid waste generated by the Project. Solid waste generation rates from the Riverside County Final Program Environmental Impact Report⁵ were used to determine the generation of solid waste by the Project.

Project Impacts

- Threshold 5.16.4-1: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Solid waste disposal and recycling services for the City is provided by Burrtec. Solid waste and recycling from the Project would be hauled to the Indio/Coachella Valley Transfer Station. Waste from the transfer station is then sorted and sent to one of the Riverside County landfills in unincorporated Riverside County.⁶ The Project and future projects related to the City have been included in the City's General Plan FEIR growth projections and forecasted solid waste capacity.

Construction

Prior to development or the issuance of building permits, a Construction and Demolition Debris Plan will be required to be developed, submitted, and approved, in accordance with the City's Construction and Demolition Debris Recycling Ordinance.⁷ In addition, the City will monitor compliance with the Plan throughout construction.

Operation

The proposed project would develop 1,500 single-family residential units, consisting of an estimated population of 2,700 residents. The estimated solid waste generation as identified in **Table 5.16.4-2: Project Solid Waste Generation**.

5 Riverside County Planning Department. *Final Program Environmental Impact Report*. Volume I. <https://planning.rctlma.org/Portals/0/genplan/content/eir/volume1.html>. Accessed October 2022.

6 City of Indio. *General Plan Update EIR (2019)*. Page 4.16-9. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed October 2022.

7 City of Indio Municipal Code. Title V. Chapter 51. Section 51.47 (4).

**TABLE 5.16.4-2
PROJECT SOLID WASTE GENERATION**

Building Type	Units	Rate	Solid Waste (tons/year)
Residential Community			
Residential	2,700 residents	6.0 lb/resident/day	2,957
Total			2,957

Source: CalRecycle. *California's 2016 Per Capita Disposal Rate Estimate*. Available at: <https://calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/2016-2/>. Accessed November 2022.

Note: The solid waste generation rates do not take into account required solid waste reductions.

Waste generated by future development on the Project Site would be sent to the Indio/Coachella Valley Transfer Station. According to CalRecycle, the Coachella Valley Transfer Station currently has a permitted maximum tonnage of 1,100 tons per day (tpd) of solid waste and a maximum capacity of 12,685 cubic yards per day.⁸ The Oasis and Desert Center landfills are located nearest to the Project site, approximately 24.3 miles south and 48.8 miles east of the Project Site respectively. As noted in **Table 5.16.4-1**, the Oasis Landfill has a remaining capacity of 433,779 cubic yards and Desert Center Landfill has a remaining capacity of 35,714 cubic yards.

The Project would generate an average of approximately 8.1 tons of solid waste per day, which is 0.74 percent of the daily capacity of the Coachella Transfer Station, which averages 1,100 tpd of solid waste. The 8.1 tons of solid waste would then be transferred to either the Oasis Landfill, which has a daily permitted capacity of 400 tons and an estimated closure date of 2055 or the Desert Center Landfill, which has a daily permitted capacity of 60 tons and an estimated closure date of 2087. The Project would contribute approximately 2.0 percent and 14 percent of the daily intake permitted at Oasis and Desert Center respectively. Accordingly, the Project would be served by a landfill with sufficient capacity to accommodate the Project's solid waste needs and would not generate solid waste in excess of State or local standards. Further, the City's General Plan FEIR states that regional landfills would remain open up to and past the GPU horizon year of 2040 and have capacity to meet the future needs of the City.⁹ In addition, the Project implements the requirements of the City's General Plan Update EIR. Impacts would be less than significant.

Threshold 5.16.4-2: Would the project comply with federal, State, and local management and reduction statues and regulations related to solid waste?

The proposed Project would be consistent with the applicable regulations associated with solid waste. The proposed Project would also comply with AB 939, AB 341, AB 1826, SB 1383, and City waste diversion goals as presented in the Indio Municipal Code, as applicable. Required adherence would maximize waste stream diversions and help reduce solid waste disposal impacts related to compliance with federal, State,

⁸ CalRecycle. "SWIS Facility/Site Activity Details." <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2305?siteID=2426>. Accessed October 2022.

⁹ City of Indio. *General Plan Update EIR (2019)*. Page 4.16-28. <https://www.indio.org/home/showpublisheddocument/924/637874293008870000>. Accessed December 2022.

and local regulations related to the solid waste generated from future development in accordance with the City's General Plan. Since the proposed Project would comply with federal, State, the City's General Plan Update EIR, and local statutes and regulations related to solid waste, impacts would be less than significant.

CUMULATIVE IMPACTS

The Southern California Association of Governments (SCAG) anticipates that Riverside County buildout would continue to occur through the year 2035. All currently active landfills have estimated closure dates that fall after the buildout year of the proposed Project with the exception of Badlands Landfill (estimated closure date 2022).

The Project and related projects would contribute to the cumulative amount of solid waste that is disposed of within the Riverside County landfill system. However, as discussed above, the Project in conjunction with other projects within the area would generate a total amount of waste that could be accommodated by existing landfills and would not contribute to cumulatively significant impacts to landfill capacity such that all landfills exceed their capacity. However, related projects are also required to comply with State and local diversion and recycling regulations. Related projects within nearby jurisdictions and Riverside County, would be required to adhere to recycling and waste diversion initiatives and programs in place within those jurisdictions.

Therefore, as analyzed in the City's General Plan Update EIR and above, due to available capacity and adherence to regulatory requirements to reduce solid waste generation, impacts would be less than significant. Cumulative impacts to the existing landfills resulting from waste generated by related projects are considered less than significant.

MITIGATION MEASURES

No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project-level and cumulative impacts associated with solid waste would be less than significant.

6.0 ALTERNATIVES

INTRODUCTION

This section of the Draft Environmental Impact Report (Draft EIR) provides a comparative analysis of the environmental effects of alternatives to the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”). This analysis has been prepared in accordance with the guidance provided by the California Environmental Quality Act (CEQA). CEQA requires that an environmental impact report (EIR) describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant environmental impacts of the project. An EIR must include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project. This section identifies and describes alternatives to the proposed Project, evaluates the environmental impacts that would result from each of these alternatives, and compares these with the proposed Project, as required by CEQA.

Key provisions of the State CEQA Guidelines¹ relating to this alternatives analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be costlier.
- The No Project Alternative shall be evaluated along with its impact. The No Project analysis shall discuss the existing conditions at the time the notice of preparation is published. Additionally, the analysis shall discuss what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.
- If the project is a development project on an identifiable property, the No Project Alternative is the circumstance under which the project does not proceed. Discussion of this alternative shall compare the environmental effects of the property remaining in its existing state to the environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this No Project consequence should be discussed. In certain instances, the No Project Alternative means “no build,” wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical results of not approving the project rather than create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.²
- The range of alternatives required in an EIR is governed by a “rule of reason;” therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.

1 California Code of Regulations. Title 14. *CEQA Guidelines*. Section 15126.6.

2 *CEQA Guidelines*, sec. 15126.6.

- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.³
- The range of feasible alternatives to a proposed project is to be selected and discussed in a manner that fosters meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to the alternative site.⁴

PROJECT OBJECTIVES

The State CEQA Guidelines requires an EIR to include a statement of objectives that addresses the underlying purpose of the Project.

As described in **Section 3.0: Project Description**, the City is proposing to adopt the Desert Retreat Specific Plan to regulate the development of an age-restricted residential community, including community facilities, on a 378-acre vacant site in north Indio.

Pursuant to the State CEQA Guidelines,⁵ the following objectives have been identified for the proposed Project:

- Develop a thoughtfully planned and integrated master-planned age-restricted residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system; and
- Provide water, sewer, and drainage systems to adequately service the project.

3 CEQA Guidelines, sec. 15126.6(f)(3).

4 CEQA Guidelines, sec. 15126.6(f)(1).

5 CEQA Guidelines, sec. 15124(b).

ALTERNATIVES

The following alternatives were selected for evaluation in this EIR:

1. Alternative 1 – No Project/No Development
2. Alternative 2 – Existing General Plan
3. Alternative 3 – Prior Zoning - Commercial Component
4. Alternative 4 – Residential Project with Golf Course
5. Alternative 5 – Reduced Density
6. Alternative 6 – Roundabout Entry Intersection

Description of each of these alternatives is provided below.

EVALUATION OF ALTERNATIVES

A comparison of the impacts of the Project and the alternatives selected for further evaluation is provided in this section for each of the environmental topics addressed in the Draft EIR. This comparison of impacts assumes, for each topic, that the Mitigation Measures identified in this Draft EIR for the Project would also be incorporated into the alternatives.

In accordance with the State CEQA Guidelines, the discussion of the environmental effects of the alternatives in an EIR may be less detailed than provided for in the Project but should be sufficiently detailed to allow meaningful evaluation, analysis, and comparison with the Project.⁶

Alternative 1 – No Project/No Development

Alternative Description

Under the No Project/No Development Alternative (Alternative 1), the Project Site would remain in its current vacant, undeveloped condition. This status would continue, and the existing environmental conditions would be maintained.

Comparative Impact Evaluation

Agriculture and Forestry

The Project Site consists of fallow farmland, last cultivated over 4 years ago. Portions of the site are currently designated as “Prime Farmland” and “Farmland of Local Importance” on the State Important Farmland Map for Riverside County. However, the site no longer meets the qualifications for these designations as the site has not been under cultivation in the last four years. With the No Project Alternative, the Project Site would remain in its current vacant condition. While available for agricultural use, the site will likely continue to be vacant and not used agricultural. As there would be no new development or changes to the existing Project Site with Alternative 1, there would be no changes to

⁶ California Code of Regulations. Title 14. *CEQA Guidelines*. Section 15126.6(d).

the conversion of agricultural land. However, as the proposed Project would not result in any significant agricultural impacts, Alternative 1 would not avoid or substantially lessen any significant agricultural impacts associated with the proposed Project.

Air Quality

Under Alternative 1, no construction activities or construction-related vehicle trips would occur; and the short-term emissions related to construction activities would be avoided. Since the Project would not be built on the Project Site, all emissions generated by construction and operation of the Project would also be avoided. The Project would not result in significant air quality impacts. This Alternative would avoid air quality impacts when compared to the Project but would not avoid or substantially lessen a significant impact of the Project, because the Project would not result in significant impacts.

Biological Resources

Under the No Project Alternative, the existing biological character of the Project Site would remain unchanged. The Project Site is currently vacant and undeveloped. However, it has been subject to disturbance from past agricultural activities and on-going disking activities to control weeds that have affected biological resources on the site. No special status plant species were observed on the site and the only special-status animal species observed was Costa's hummingbird and sharp-shinned hawk.

Alternative 1 would avoid any potential impacts to biological resources as the Project Site would not be developed with the proposed development. As the proposed Project would result in less than significant impacts with mitigation, Alternative 1 would not avoid or substantially lessen any significant biological resource impacts that would result from the proposed Project.

Cultural Resources

Under this Alternative, the Project Site would remain in its current condition. The Project involves grading of the Project Site that has the potential to disturb any subsurface cultural resources (historic or prehistoric) that might be present on the Project Site.

As no ground disturbing and grading activities would occur under Alternative 1, the potential for impacts to any subsurface cultural resources encountered and disturbed by construction of the proposed Project would be avoided. Mitigation measures are identified for the proposed Project to avoid the potential for significant impacts to any cultural resources that may be encountered during construction activities. As the proposed Project would result in less than significant impacts with mitigation, Alternative 1 would not avoid or substantially lessen any significant cultural resource impacts that would occur with the proposed Project.

Energy

Under Alternative 1, short-term energy consumption related to construction activities would be avoided. Since the Project would not be developed, energy consumption from operation of the Project would also

be avoided. As the Project would be built and operated in a manner determined to be consistent with federal, State, and local regulations, energy conservation and infrastructure were determined to be less than significant and, therefore, would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen any significant energy impacts that would occur with the proposed Project.

Geology and Soils

Alternative 1 would not expose additional people and/or structures to potential adverse effects associated with geologic and seismic hazards as the Project Site would remain in its current condition, and no grading or development would occur. The potential for impacts related to loss of topsoil, sedimentation, erosion, and landform alterations associated with construction of the Project were determined to be less than significant for the Project as proposed with the incorporation of mitigation measures. As the proposed Project would result in less than significant impacts with mitigation, Alternative 1 would not avoid or substantially lessen any significant geology and soils impacts that would occur with the proposed Project after implementation of the proposed mitigation measures.

Greenhouse Gas Emissions

No construction activities or construction related vehicle trips would occur with this Alternative, and accordingly greenhouse gas emissions (GHGs) related to temporary construction activities would be avoided. As the Project would not be built or operated, GHGs from operation of the Project would also be avoided. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen any significant GHG impacts that would occur with the proposed Project.

Hydrology and Water Quality

Under this Alternative, the Project Site would remain in its current condition, and no grading or development would occur. Existing stormwater flows across the Project Site would continue to occur and the existing hydrologic and drainage patterns would remain unchanged. Hydrology and water quality impacts during construction of the Project would not occur. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen any significant hydrology and water quality impacts that would occur with the proposed Project.

Land Use and Planning

With the No Project Alternative, there would be no changes in existing land use conditions. None of the objectives and community benefits of the Project would occur. There would be no development on the Project Site that might improve the City's economic base, nor would the site complement the existing pattern and scale of development across the City. The No Project/No Development Alternative would not implement key General Plan goals and policies, including the City's target to implement a specific plan for the Project Site to ensure the phased, logical, and cost-effective extension of infrastructure and build-out of new development.

This Alternative, like the Project, would not divide an established community and would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. However, Alternative 1 would not implement the City's General Plan.

Noise

No construction activities would occur with this Alternative, and potential temporary noise impacts from construction would be avoided. As this Alternative would not result in new development, there would be no increase in traffic. In addition, Alternative 1 would not include the introduction of stationary noise sources such as mechanical equipment, recreation areas, or parking lots. Measures have been identified to mitigate all potential noise impacts identified for the Project. As the proposed Project would result in less than significant noise impacts, Alternative 1 would not avoid or substantially lessen any significant noise impacts that would occur with the proposed Project.

Population and Housing

Under the No Project/No Development Alternative, the Project Site would remain vacant and undeveloped. Accordingly, no housing units would be developed, and no resultant residential population would be generated. Additionally, no employment opportunities for construction workers would be generated because no on-site construction activities would occur. The Project's impacts with regard to housing would be considered beneficial because it would provide housing supply to help meet the City's housing goals and employment opportunities to construction workers within the Project Site.

As mentioned, no residential units would be developed on the site under Alternative 1, thus no new residential population would be introduced into the Project Site. As the Project would not result in significant population and housing impacts, Alternative 1 would not avoid or substantially lessen a significant impact of the Project. Additionally, this alternative would not implement the City's General Plan by providing housing on the Project Site.

Public Services

Under this Alternative, development of the Project Site would not occur, and no new residents, employees, or visitors would be introduced to the Project area. There would be no increase in demand on local public services, such as fire and emergency services, law enforcement, schools, and libraries and payment of development impact fees to fund these services would not be required. The existing public services that support the local area would remain as is, thus no potential significant impacts on public services would occur under this Alternative. The impact of the proposed Project on public services would be less than significant and, for this reason, Alternative 1 would not avoid or substantially lessen a significant impact that would occur with the proposed Project.

Recreation

The No Project Alternative would not entail any development of the Project Site, thus the addition of new residents, employees, or visitors to the Project Site would not occur. Therefore, there would not be an increase in demand for park or recreational facilities or services and payment of parkland in-lieu fees, or an equivalent, would not be required. The impact of the proposed Project on recreation facilities would be less than significant and, for this reason, Alternative 1 would not avoid or substantially lessen a significant impact that would occur with the proposed Project.

Transportation

As there would be no new development and site improvements with Alternative 1, no increase in long-term traffic volumes and vehicle miles traveled (VMT) would occur. The VMT impact and other transportation effects of the proposed Project would be less than significant and, for this reason, Alternative 1 would not avoid or substantially lessen a significant impact that would occur with the proposed Project.

Tribal Cultural Resources

Under Alternative 1, the Project Site would remain in its current condition. The Project would involve grading of the Project Site that has the potential to disturb any subsurface tribal cultural resources that might be present on the Project Site, which would be avoided under Alternative 1. However, mitigation measures are identified for the proposed Project to mitigate the potential for impacts to any subsurface resources that may be encountered during construction to less than significant. As the proposed Project would result in less than significant impacts with mitigation, Alternative 1 would not avoid a significant impact to tribal cultural resources that would occur with the proposed Project.

Utilities and Service Systems

Water Service and Supply

Under this Alternative, development of the Project Site would not occur so there would be no increase in demand on water supplies. Accordingly, this Alternative would result a reduced impact on water service and supply, as compared to the Project. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen significant impacts to water service and supply that would occur with the proposed Project.

Wastewater Collection and Treatment

Under this Alternative, development of the Project Site would not occur and there would be no increase in demand on wastewater treatment, which is considered a reduced impact as compared to the Project. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen significant impacts to wastewater collection and treatment that would occur with the proposed Project.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Under this Alternative, development of the Project Site would not occur. Therefore, this Alternative would result in no demand for electricity, natural gas, or communication services/infrastructure. As the extension of services the Project Site would not be required, this is considered a reduced impact. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen significant impacts to dry utilities that would occur with the proposed Project.

Solid Waste

Under this Alternative, no development on the Project Site would occur. As such, no solid waste would be generated under this Alternative, which is considered a reduced impact. As the proposed Project would result in less than significant impacts, Alternative 1 would not avoid or substantially lessen significant impacts to solid waste that would occur with the proposed Project.

Summary of Comparative Impacts

A summary comparison of impacts associated with the Project Alternatives is provided in **Table 6.0-14: Comparison of Alternatives to Project**. As described previously, the No Project/No Development Alternative would avoid all impacts of the proposed Project, but as all the impacts of the Project would be less than significant or can be mitigated to less than significant, this alternative would not avoid or lessen any significant impacts. The No Project/No Development Alternative would not implement the City's General Plan, which designates the site for development with single-family housing.

Relationship to Project Objectives

As no development would occur under this Alternative, the following Project objectives would not be achieved with the No Project Alternative:

- Develop a thoughtfully planned and integrated master-planned age-restricted residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system; and
- Provide water, sewer, and drainage systems to adequately service the project.

Alternative 2 – Existing General Plan

Alternative Description

The Existing General Plan Alternative (Alternative 2) examines the impacts that would result from development of the Project Site in accordance with the number of residential units allowed by the current Suburban Neighborhood General Plan land use designation for the site. The Suburban Neighborhood designation allows the development of single-family detached homes in low intensity neighborhoods. The maximum gross density permitted is 8 Dwelling Units per acre. Applying this maximum gross density to the 378-acre Project Site, 3,095 single family homes could be developed on the site. The homes in this alternative would not be age-restricted.

Comparative Impact Evaluation

Agriculture and Forestry

Under Alternative 2, the Project Site, which consists of fallow agricultural land currently identified as Prime on the State Important Farmland Maps within the project area would be developed. This alternative would be similar to the Project as the site would be developed with single-family, low-density residences. However, this Alternative would increase the number of dwelling units on site. As the Project Site no longer meets the criteria to qualify as important farmland, neither the Project nor this alternative would result in significant impacts to agricultural resources. Alternative 2 would not avoid or substantially lessen significant impacts to agricultural resources that would occur with the proposed Project.

Air Quality

Construction activities for both Alternative 2 and the Project would produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil-disturbing activities. It is anticipated that grading activities for the entire Project site would remain similar to the Project. As discussed in **Section 5.2: Air Quality**, mass grading activities would exceed the regional SCAQMD threshold for NO_x , and the localized SCAQMD thresholds for PM_{10} and $PM_{2.5}$ while the remaining construction emissions would be below SCAQMD thresholds. However, emissions from mass grading would be reduced to less than significant with mitigation measure **MM AQ-1** which requires to use of Tier 4 construction equipment. This mitigation would also be applied under mass grading activities for Alternative 2. As Alternative 2 includes more residential units compared to the Project, construction emissions associated with building construction and architectural coatings are anticipated to be higher than the Project.

Similar to the Project, operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 2. Source emissions

would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. As discussed in **Section 5.2: Air Quality**, the Project's operational emissions would not exceed SCAQMD thresholds. The estimated operational emissions based on the proposed uses for Alternative 2 are shown in **Table 6.0-1: Alternative 2 Operational Air Quality Emissions**. As shown, operational emissions would be higher compared to the Project for all criteria pollutants. Moreover, Alternative 2 would exceed SCAQMD's regional thresholds of significance for VOCs and NO_x, and CO when compared to the Project.

Source	VOC	NO_x	CO	SO_x	PM10	PM2.5
	pounds/day					
Alternative 2 Emissions	189	88	762	1	143	41
Proposed Project Emissions	50	21	236	<1	32	10
Net Difference	139	67	526	1	111	31
Alternative 2 Emissions	189	88	762	1	143	41
<i>SCAQMD Mass Daily Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold exceeded?	YES	YES	YES	No	No	No

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compound;

As described previously, the proposed Project would require mitigation to lessen the construction and operational air quality impacts to less than significant. With Alternative 2, impacts to air quality would be greater during construction and operation, and even with mitigation, would remain significant and unavoidable during operation.

Biological Resources

Under Alternative 2, similar grading and disturbance activities to those of the Project would occur. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which applicable mitigation measures would be required to mitigate impacts to a less than significant level. As such, Alternative 2 would result in similar impacts as the proposed Project. Alternative 2 impacts to biological resources would be less than significant with comparable mitigation and would be similar in comparison to the proposed Project impacts, which would also be less than significant with mitigation. Alternative 2 would not avoid or substantially lessen a significant impact to biological resources that would occur from the proposed Project.

Cultural Resources

Alternative 2 would fully develop the entire Project Site with residential uses, as would the Project. This Alternative would have similar potential to uncover previously unknown historical resources, archeological resources, or human remains. As such, Alternative 2 would result in similar impacts to the proposed Project. Impacts from the proposed Project to cultural resources would be less than significant

with comparable mitigation. For these reasons, Alternative 2 would not avoid or substantially lessen a significant impact to cultural resources that would occur with the proposed Project.

Energy

Under this Alternative there would be an increase in development compared to the Project, which would result in an increased demand for electricity and transportation fuels during construction, and an increased demand for electricity, natural gas, and transportation fuels during operation. As such, the overall impacts of this alternative would increase compared to the Project due to an increase in energy consumption.

However, this Alternative would be constructed and designed in accordance with the most current version of Title 24, California's Energy Efficiency Standards for buildings and the State Energy Conservation Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. Therefore, this alternative would continue to follow local, State, and federal regulatory compliance for energy standards and therefore would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As impacts from the proposed Project to energy resources would be less than significant, Alternative 2 would not avoid or substantially lessen a significant impact to energy resources that would occur with the proposed Project.

Geology and Soils

Alternative 2 would involve comparable construction activities, including grading, for the development of the residential uses and would result in similar impacts related to erosion and sedimentation on the Project Site. Any future development within the Project Site occurring would have to comply with the most current California Building Code (CBC) requirements for seismicity, liquefaction, subsidence, and expansive soils. Similar to the Project, this Alternative would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 2 would be required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) along with regulatory measures pertaining to erosion control plans. As such, Alternative 2 would result in similar impacts to the proposed Project and would not avoid or substantially lessen significant geology and soils impacts that would occur with the proposed Project.

Greenhouse Gas Emissions

Construction activities for both Alternative 2 and the Project would produce combustion GHG emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. However, as Alternative 2 includes more residential units compared to the Project, construction GHG emissions associated with building construction are anticipated to be higher than the Project.

Alternative 2 would generate GHG emissions from a number of individual sources during postconstruction (operational) use of the buildings and related activities (e.g., landscape maintenance). Operational activities under Alternative 2 would differ from the Project, as this Alternative would result in an overall increased amount of development. Similar to the Project, operational GHG emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 2. The estimated operational emissions based on the proposed uses for Alternative 2 are shown in **Table 6.0-2: Alternative 2 Operational GHG Emissions**. As shown, operational GHG emissions would be higher compared to the Project.

This Alternative would be required to adhere to regulatory compliance measures designed to reduce GHG emissions such as the CALGreen Code and efficiency regulations adopted by the CEC. Moreover, this alternative would not conflict with applicable plans including CARB’s Climate Change Scoping Plan, SCAG’s 2020-2045 RTP/SCS, or the City’s CAP. As such, this alternative would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. While Alternative 2 would generate higher GHG emissions than the proposed Project, neither the Project nor this alternative would result in significant GHG impacts.

**TABLE 6.0-2
ALTERNATIVE 2 OPERATIONAL GHG EMISSIONS**

Source	Unmitigated MTCO ₂ e per year
Alternative 2 Emissions	27,996
Proposed Project Emissions ¹	6,555
Net Difference	21,441

Notes: GHG = greenhouse gas; MTCO₂e = metric tons of carbon dioxide equivalent.

¹ Proposed project emissions do not include amortized construction emissions as construction was not evaluated for the alternatives.

Hydrology and Water Quality

Similar to the Project, Alternative 2 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of regulatory measures similar to the Project would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff.

With the implementation of specified BMPs and detention features, the proposed Project would not substantially increase the rate or amount of surface runoff from the site and there would be flooding impacts as a result. Alternative 2 would result in similar less than significant hydrology and water quality impacts as the Project. Therefore, Alternative 2 would not avoid or substantially lessen significant hydrology and water quality impacts that would occur with the proposed Project.

Land Use and Planning

Implementation of Alternative 2 considers development of the Project Site in accordance with the number of residential units allowed by the current Suburban Neighborhood General Plan land use designation for the site. The Suburban Neighborhood designation allows the development of single-family detached homes with a maximum gross density permitted is 8 Dwelling Units per acre. This Alternative, like the Project, would not divide an established community and would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

A total of 3,095 residential units would be developed on the Project Site compared to the Project's 1,500 residential dwelling units. Accordingly, Alternative 2 would result in approximately 1,595 more residential units than the Project. As the Alternative would implement the uses permitted by the existing General Plan land use designation for the Project Site, neither this alternative or the proposed Project would result in significant land use and planning impacts, and therefore, Alternative 2 would not avoid or substantially lessen any significant land use and planning effects.

Noise

Both Alternative 2 and the Project would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, graders, pavers, rollers, and scrapers. Construction under Alternative 2 would differ from the Project, as this Alternative would include 1,595 additional single-family residential units. Noise from construction activities on the Project Site would not be significant with this alternative or the proposed Project.

Similar to the Project, implementation of project designs and Mitigation Measures would require sound attenuation measures be incorporated into the design of stationary noise sources to minimize noise levels which would reduce potentially significant noise impacts to a less than significant level. Noise impacts under this Alternative from stationary sources would be similar to the Project and impacts would remain less than significant with mitigation. However, due to the substantially greater number of residents, noise from mobile sources would be higher under this alternative. Therefore, Alternative 2 would not avoid or substantially lessen any significant impacts to noise that would occur with the proposed Project.

Population and Housing

Alternative 2 would enable the development of up to 3,095 residential units within the 378-acre Project Site. Accordingly, the Project Site would contain approximately 395 additional residential units. At 3.04 persons per household, this Alternative would generate up to approximately 9,409 residents,^{7,8} an increase of approximately 6,709 residents from the Project.

7 State of California Department of Finance (DOF). "E-5 Population and Housing Estimates for Cities, Counties, and the State (2022)." <https://dof.ca.gov/forecasting/Demographics/estimates/>. Accessed December 2022.

8 $3.04 \text{ persons per household} \times 3,095 \text{ units} = 9,409 \text{ residents}$

Similar to the Project, this Alternative would be consistent with City and SCAG population and employment growth projections and policies. However, the increase in on-site residents would result in an increased demand on the existing utility infrastructure that services the area when compared to the Project. Even though neither the Project nor Alternative 2 would result in a significant impact, impacts associated with the Project would be than with Alternative 2. Alternative 2 would not, therefore, avoid or substantially lessen any significant population and housing impacts that would occur with the proposed Project.

Public Services

Fire Protection and Emergency Medical Services

Both Alternative 2 and the Project would increase demand on the Riverside County Fire Department (RCFD) for fire protection and emergency services due to the development of various residential and commercial uses on the Project Site. Construction of Alternative 2 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all residential development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Therefore, implementation of this Alternative would not result in the need for new or the physical alternation to any existing governmental facility in regard to fire protection and emergency services that would result in significant environmental effects. Therefore, Alternative 2 would not avoid or substantially lessen a significant impact to fire protection and emergency medical services that would occur with the proposed Project.

Law Enforcement Services

Alternative 2, like the Project, would increase demand on the City of Indio Police Department (Police Department) for law enforcement services due to the development of residential uses on the site. This Alternative would create additional calls for service compared to the Project with the increase in residential dwelling units and result in an increased demand on the Police Department. Like the Project, this Alternative would also incorporate project designs that would enhance security and access throughout the site to reduce needed service from the Police Department. However, in order to accommodate the Alternative's increased demand for services, the Police Department would require additional officers to service the site. Regulatory measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Therefore, Alternative 2 would not avoid or substantially lessen a significant impact to law enforcement services that would occur with the proposed Project.

Library Services

Alternative 2, like the Project, would increase demand on the Indio Public Library for library services. This Alternative would create additional demand for library services due to the increase in residential

dwelling units and resultant increase in service population under this Alternative when compared to the Project. The Indio Public Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Therefore, Alternative 2 would not avoid or substantially lessen a significant impact to library services that would occur with the proposed Project.

School Services

Alternative 2 would increase demand on Desert Sands Unified School District (DSUSD) for school services due to development of residential units and the resultant generation of students. Alternative 2 would fall within the attendance boundaries of DSUSD and would be serviced by the three schools of Richard R. Oliphant Elementary, Desert Ridge Academy (Middle), and Shadow Hills High. Alternative 2 would result in an increase in the number of students generated because it would include approximately 395 additional residential units than the Project and would not be age-restricted. Alternative 2 would generate approximately 3,293 students from the residential uses.^{9,10} According to the City's GP FEIR, DSUSD has had steady, but overall decreasing enrollment rates over the past few years and does not have any immediate plans to expand educational facilities. However, it was reported that DSUSD would require the need for 3.07 elementary schools, 1.45 middle schools, and 1.40 high schools with the increase of 2,609 students, 595 students, and zero students for those facilities respectively over the planning horizon addressed by the City's General Plan.¹¹ Therefore, the addition of students generated by this Alternative would potentially cause the three nearby schools to operate over their capacities. Meanwhile, the Project would not include any student generation. As such, Alternative 2 would result in increased impacts to school services compared to the proposed Project.

Recreation

Alternative 2 would have the same single-family residential uses as the proposed Project, but at an increased density. Additionally, these homes would not be age-restricted and would not include the same type of community recreation facilities as the Project. For these reasons, Alternative 2 would result in additional demand for parks and recreational facilities due to the increase in residents and visitors on the Project Site when compared to the Project. Like the Project, implementation of Alternative 2 would provide recreation and open spaces throughout the Project Site available for residents and those visiting the Project Site. However, it is unlikely that the Alternative would contain the same level of recreation as proposed by the Project. Alternative 2 would allow for less space for recreation due to the increased number of residential units onsite. This decrease in recreational opportunity on the site would create an

9 9,408.8 total residents * 0.35 student generation rate = 3,293 total students.

10 Desert Sands Unified School District (DSUSD). *Fee Justification Report for New Residential and Commercial/Industrial Development*. May 18, 2022. <https://www.dsusd.us/common/pages/DisplayFile.aspx?itemId=51180085>. Accessed December 2022.

11 DSUSD. *Fee Justification Report for New Residential and Commercial/Industrial Development*. "Table VIII." May 18, 2022. <https://www.dsusd.us/common/pages/DisplayFile.aspx?itemId=51180085>. Accessed December 2022.

increased demand on existing City parks and recreational facilities. Applicable mitigation would be implemented when compared to the Project, which includes payment of parkland fees to minimize recreational impacts. Alternative 2 would not avoid or substantially lessen any significant effects of the Project on recreational facilities.

Transportation

The Project would generate 6,470 total net new trips. Total VMT for Alternative 2 would also be increased compared to the proposed Project. As such, Alternative 2 would result in increased impacts to transportation compared to the proposed Project. Impacts from the proposed Project to transportation would be less than significant. For these reasons, Alternative 2 would not avoid or substantially lessen significant transportation impacts that would occur with the proposed Project.

Utilities and Service Systems

Water Service and Supply

Alternative 2 would result in a total of 9,409 residents which would have a corresponding water demand of 580.05 acre-feet per year (afy).¹² The water demand associated with this Alternative would result in an increase of approximately 299 afy when compared to the Project's water demand of 281 afy. However, the aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period with buildout of the City's General Plan. Like the Project, this Alternative would require additional water infrastructure to serve the Project Site. Alternative 2 would result in increased impacts to water service when compared to the Project but would not cause significant and unavoidable impacts. Impacts associated with the Project would be less than significant with incorporation of applicable project design and Mitigation Measures. Therefore, Alternative 2 would not avoid or substantially lessen a significant impact to water service and supply that would occur with the proposed Project.

Wastewater Collection and Treatment

Alternative 2 would have a total of 3,095 residential units. Based on the number of EDUs for this Alternative and the estimated 3.04 persons per household, this Alternative would generate approximately 0.52 million gallons per day (MGD) of wastewater, approximately 0.27 MGD more than the Project.¹³ Similar to the Project, wastewater generated by this Alternative would be treated at the water reclamation plant (WRP) No. 7. Accordingly, available treatment capacity would be provided, and impacts would be less than significant under this Alternative with incorporation of applicable project design and Mitigation Measures. Impacts associated with Alternative 2 would be similar to those of the Project, except that it is expected that additional upgrades to CVWD's current sewer lines would be

12 9,409 residents * 55 gallons per person = 517,495 gallons per person per day = 580 AFY.

13 (3.04 persons/household * 55 gallons/per/day) * 3,095 dus = 517,484 gal/day

required to accommodate the increased flows. Alternative 2 would not avoid or substantially lessen any significant impacts to wastewater collection and treatment that would occur with the proposed Project.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Alternative 2 would increase the number of residential units compared to the Project but would continue to develop the whole Project Site and thus would require the same extension of infrastructure. Similar to the Project, Alternative 2 would require submittal, review, and approval of plans through the City and relevant utility providers, which would ensure future utility demands would be manageable. Any further need for infrastructure upgrades associated with Alternative 2 would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for Alternative 2 through the City and the appropriate regulatory agencies and utility providers. Impacts under this Alternative related to electricity, natural gas, and telecommunications infrastructure would be similar to the Project and impacts would remain less than significant. Therefore, Alternative 2 would not avoid or substantially lessen a significant impact to dry utilities that would occur with the proposed Project.

Solid Waste

Alternative 2 would have a total of 3,095 residential dwelling units adding approximately 9,409 residents. **Table 6.0-3: Solid Waste Generation of Alternative 2**, indicates that this Alternative would generate approximately 10,304 tons per year, which is approximately 7,347 more tons per year fewer than the Project. In comparison to the Project's approximate 8.1 tons of solid waste per day, Alternative 2 would contribute 20 additional tons of solid waste per day.

TABLE 6.0-3 SOLID WASTE GENERATION OF ALTERNATIVE 2			
Building Type	Units	Rate	Solid Waste (tons/year)
Residential	9,409 residents	6.0 lb/resident/day	10,304
Total			10,304

Source: CalRecycle. California's 2016 Per Capita Disposal Rate Estimate.
<https://calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/2016-2/>. Accessed December 2022.

Note: The solid waste generation rates do not take into account required solid waste reductions.

There is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. While this Alternative and the Project would increase demand for waste disposal services, incorporation of similar project design would reduce impacts related to solid waste for both to less than significant levels. Therefore, Alternative 2 would not avoid or substantially lessen a significant solid waste impact that would occur with the proposed Project.

Summary of Comparative Impacts

Alternative 2 would result in incrementally greater impacts when compared to the Project with respect to air quality, greenhouse gas emissions, population and housing, schools, transportation, water service and supply, wastewater, and solid waste. Impacts related to Alternative 2 would be similar with respect to agriculture, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. No significant impacts would be avoided or substantially reduced to a level of less than significant with Alternative 2.

Relationship to Project Objectives

With the implementation of the City's General Plan, Alternative 2 would develop the Project Site consistent with the type and intensity of land uses allowed by the City General Plan land use and zoning designations for the Project Site. Alternative 2 would implement a high-quality master-planned community on Desert Retreat, one of the last remaining, large, centrally located, vacant parcels in the City. All of the Project objectives described below would be at least partially met with this Alternative, but Alternative 2 would not substantially reduce or avoid any significant environmental effects of the proposed Project.

- Develop a thoughtfully planned and integrated master-planned age-restricted residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system;
- Provide water, sewer, and drainage systems to adequately service the project;

Alternative 3 – Prior Zoning - Commercial Component

Alternative Description

The Existing General Plan Alternative (Alternative 3) examines the impacts that would result from development of the Project Site in accordance with the number of residential units allowed by the zoning for the site at the time the NOP was issued. The City recently updated its zoning on a citywide basis to conform with the City's General Plan as updated in September 2019. The City's new citywide zoning regulations, called the Unified Development Code, became effective on October 22, 2022. The current zoning for the Project Site is Suburban Neighborhood-8, which is intended to implement the General Plan

designation applicable to the Project site (Suburban Neighborhood-High), which allows single-family residential development with a density of 4 -8 units per acre. However, under the prior zoning, the southwest corner of the Project Site at Avenue 40 and Madison Street was zoned Village Core to allow commercial uses, with zoning of Residential Low on the remaining 330 acres. Consistent with this prior zoning, Alternative 3 includes a 120,000 square foot retail commercial center on approximately 15 acres on the corner of Avenue 40 and Madison Street and development of the remaining 363 acres at the same density as the project, which would result in 1,500 units. The homes in this alternative would not be age-restricted.

Comparative Impact Evaluation

Agriculture Resources

Under Alternative 3, the site would be developed according to the existing zoning, with single-family residential uses on approximately 363 acres and 120,000 square foot retail commercial center on approximately 15 acres. There would be an increased intensity of uses with this Alternative, with the same amount of residences as the Project on 363 acres instead 378 and 15 acres of commercial space. Both the Alternative and the Project would result in less than significant impacts to agricultural resources. Alternative 3 would not avoid or substantially lessen significant impacts to agricultural resources that would occur with the proposed Project.

Air Quality

Construction activities for both Alternative 3 and the Project would produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil-disturbing activities. It is anticipated that grading activities for the entire Project site would remain similar to the Project. As discussed in **Section 5.2: Air Quality**, mass grading activities would exceed the regional SCAQMD threshold for NO_x , and the localized SCAQMD thresholds for PM_{10} and $PM_{2.5}$ while the remaining construction emissions would be below SCAQMD thresholds. However, emissions from mass grading would be reduced to less than significant with mitigation measure **MM AQ-1** which requires to use of Tier 4 construction equipment. This mitigation would also be applied under mass grading activities for Alternative 3. As Alternative 3 includes more development compared to the Project, construction emissions associated with building construction and architectural coatings are anticipated to be higher than the Project.

Similar to the Project, operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 3. Source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. As discussed in **Section**

5.2: Air Quality, the Project's operational emissions would not exceed SCAQMD thresholds. The estimated operational emissions based on the proposed uses for Alternative 3 are shown in **Table 6.0-4: Alternative 3 Operational Air Quality Emissions**. As shown, operational emissions would be higher compared to the Project for all criteria pollutants. Moreover, Alternative 3 would exceed SCAQMD's regional threshold of significance for VOCs when compared to the Project.

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
pounds/day						
Alternative 3 Emissions	104	51	430	1	85	24
Proposed Project Emissions	50	21	236	<1	32	10
Net Difference	54	30	194	1	53	14
Alternative 3 Emissions	104	51	430	1	85	24
<i>SCAQMD Mass Daily Threshold</i>	55	55	550	150	150	55
Threshold exceeded?	YES	No	No	No	No	No

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compound;

As described previously, the proposed Project would require mitigation to lessen the construction and operational air quality impacts to less than significant. With Alternative 3, impacts to air quality would remain significant and unavoidable during operation, after applying mitigation measures.

Biological Resources

Under Alternative 3, the Project Site would result in similar grading and disturbance activities as those of the Project. Since this Alternative would result in development of the entire Project Site, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. Alternative 3 impacts to biological resources would be less than significant with comparable mitigation and would be similar in comparison to the proposed Project's less than significant impacts with mitigation. Alternative 3 would not avoid or substantially lessen significant impacts to biological resources that would occur with the proposed Project.

Cultural Resources

Alternative 3 would fully develop the entire Project Site with a mixture of residential and commercial uses. This Alternative would have similar potential to uncover previously unknown historical resources, archeological resources, or human remains. Therefore, there would be comparable impacts to cultural resources, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. The appropriate mitigation before and during construction activities would ensure that development would not result in significant impacts to potential cultural resources. As such, Alternative

3 would result in similar less than significant impacts to the proposed Project with comparable mitigation. For these reasons, Alternative 3 would not avoid or substantially lessen any significant impacts to cultural resources that would occur with the proposed Project.

Energy

Under this Alternative there would be an increase in development compared to the Project, which would result in an increased demand for electricity and transportation fuels during construction, and an increased demand for electricity, natural gas, and transportation fuels during operation. As such, the overall impacts of this alternative would increase compared to the Project due to an increase in energy consumption.

However, this Alternative would be constructed and designed in accordance with the most current version of Title 24, California's Energy Efficiency Standards for buildings and the State Energy Conservation Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. Therefore, this alternative would continue to follow local, State, and federal regulatory compliance for energy standards and therefore would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As such, Alternative 3 would result in similar impacts to energy resources, which would be less than significant. For these reasons, Alternative 3 would not avoid or substantially lessen a significant impact to energy resources that would result from the Project.

Geology and Soils

Alternative 3 would involve comparable construction activities, including grading, for the development of the mixture of residential and commercial uses and would result in similar impacts related to erosion and sedimentation on the Project Site. This Alternative would result in similar impacts related to erosion and sedimentation on the Project Site. Any future development within the Project Site would have to comply with the most current CBC requirements for seismicity, liquefaction, subsidence, and expansive soils, similar to the Project, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 3 would be required to develop and implement a SWPPP along with all Project Design Features of the Project and Mitigation Measures pertaining to erosion control plans. For this reason, the geology and soils impacts under this Alternative would be less than significant but would be reduced compared to the Project. As such, Alternative 3 impacts to geology and soils would be less than significant with comparable mitigation. For these reasons, Alternative 3 would not avoid or substantially lessen any significant impacts related to geology and soils that would result from the Project.

Greenhouse Gas Emissions

Construction activities for both Alternative 3 and the Project would produce combustion GHG emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and

from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. However, as Alternative 3 includes more development compared to the Project, construction GHG emissions associated with building construction are anticipated to be higher than the Project.

Alternative 3 would generate GHG emissions from a number of individual sources during postconstruction (operational) use of the buildings and related activities (e.g., landscape maintenance). Operational activities under Alternative 3 would differ from the Project, as this Alternative would result in an overall increased amount of development. Similar to the Project, operational GHG emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 3. The estimated operational emissions based on the proposed uses for Alternative 3 are shown in **Table 6.0-5: Alternative 3 Operational GHG Emissions**. As shown, operational GHG emissions would be higher compared to the Project.

This Alternative would be required to adhere to regulatory compliance measures designed to reduce GHG emissions such as the CALGreen Code and efficiency regulations adopted by the CEC. Moreover, this alternative would not conflict with applicable plans including CARB's Climate Change Scoping Plan, SCAG's 2020-2045 RTP/SCS, or the City's CAP. As such, this alternative would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Alternative 3 would result in greater impacts to GHG compared to the proposed Project. However, Alternative 3 impacts to GHG would still be considered less than significant with the implementation of applicable mitigation measures.

**TABLE 6.0-5
ALTERNATIVE 3 OPERATIONAL GHG EMISSIONS**

Source	Unmitigated MTCO _{2e} per year
Alternative 2 Emissions	14,889
<i>Proposed Project Emissions¹</i>	6,555
Net Difference	8,334

Notes: GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent.

¹ *Proposed project emissions do not include amortized construction emissions as construction was not evaluated for the alternatives.*

Hydrology and Water Quality

Similar to the Project, Alternative 3 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of project designs, similar to the Project, would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and

water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff.

With the implementation of specified BMPs and detention features, the proposed Project would not substantially increase the rate or amount of surface runoff from the site and there would be flooding impacts as a result. Alternative 3 would result in similar less than significant hydrology and water quality impacts as the Project. Therefore, Alternative 3 would not avoid or substantially lessen any significant hydrology and water quality impacts that would occur with the proposed Project.

Land Use and Planning

Implementation of Alternative 3 would develop the Project Site with 120,000 square foot retail commercial center on approximately 15 acres and the remaining 363 acres at the same density as the project, which would result in 1,500 units. This is compared to the Project's 1,500 residential dwelling units, 120,000 square feet of commercial space distributed throughout the site. Alternative 3 would result in a similar number of residential units and it would add commercial space not proposed in the Project.

Alternative 3 would not conform with the City's current General Plan land use designation for the Project Site, which designates the site for residential Suburban Neighborhood uses. Consequently, this Alternative would have greater impacts with respect to land use and planning than the proposed Project.

Noise

Both Alternative 3 and the Project would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, graders, pavers, rollers, and scrapers. Construction equipment sources would cause significant noise impacts to both on- and off-site receptors. Implementation of **MM NOI-1** under this Alternative would reduce construction noise and vibration impacts to a less than significant level.

Single noise events from parking lots could be an annoyance to on-site and surrounding residents during certain time periods such as evening and morning hours and may exceed local standards at receptor locations. Similar to the Project, implementation of applicable project designs and Mitigation Measures would require sound attenuation measures be incorporated into the design of stationary noise sources to minimize noise levels which would reduce potentially significant noise impacts to a less than significant level. Impacts under this Alternative to stationary sources would be similar to the Project but would be incrementally increased due to the commercial operations in the southeast portion of the site. Therefore, Alternative 3 would not avoid or substantially lessen any significant noise impacts to that would occur with the proposed Project.

Population and Housing

Under Alternative 3, the site would contain the same number of residential units as the Project and add 15 acres of commercial use. This Alternative would result in 4,560 residents,¹⁴ which is 1,860 more residents than the Project. Additionally, this commercial uses in this alternative would generate approximately 240 employees.^{15,16}

Similar to the Project, this Alternative would be consistent with City and SCAG population and employment growth projections and policies. However, the addition of commercial use would increase demand on utilities when compared to the Project. Therefore, Alternative 3 would not avoid or substantially lessen any significant impacts related to population and housing that would occur with the proposed Project.

Public Services

Fire Protection and Emergency Medical Services

Both Alternative 3 and the Project would increase demand on RCFD for fire protection and emergency services due to the development of residential and open space/recreation uses on the Project Site. The additional residents and the addition of employees would result in greater service population associated with Alternative 3 would be anticipated to result in an increase in the number of calls for service when compared to the Project. Construction of Alternative 3 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Therefore, implementation of this Alternative would not result in the need for new or the physical alternation to any existing governmental facility in regard to fire protection and emergency services that would cause any significant environmental effects, and impacts would be less than significant. Therefore, Alternative 3 would not avoid or substantially lessen a significant impact to fire protection and emergency medical services that would occur with the proposed Project.

Law Enforcement Services

Alternative 3, like the Project, would increase demand on the Police Department for law enforcement services due to the development of residential and commercial uses on the site. This Alternative would create additional calls for service due to the removal of age restriction to the development and addition of commercial use. The resultant increase in service population under this Alternative would be greater

14 3.04 persons per household × 1,500 units = 4,560 residents.

15 341 acres × 0.15 employee/acre = 51 employees.

16 County of Riverside. *County of Riverside Environmental Impact Report No. 521*. Public Review Draft, February 2015. "Section 4.1: Environmental Assumptions and Methods." Table 4.1-D; 1 employee / 500 square feet. https://rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/04-01_EnvironAssumptions.pdf. Accessed December 2022.

than when compared with the Project. Like the Project, this Alternative would also incorporate project designs that would enhance security and access throughout the site to reduce needed service from the Police Department. However, in order to accommodate the Alternative's increased demand for services, the Police Department would require additional officers to service the site. Mitigation Measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Therefore, Alternative 3 would not avoid or substantially lessen a significant impact to law enforcement services that would occur with the proposed Project.

School Services

Alternative 3 would increase demand on DSUSD for school services due to development of residential units and the resultant generation of students. Alternative 3 would fall within the attendance boundaries of DSUSD and would be serviced by the three schools of Richard R. Oliphant Elementary, Desert Ridge Academy (Middle), and Shadow Hills High. Alternative 3 would result in an increase in the number of students generated because it would not be age restricted and thus all 1,500 units could include school aged children. Alternative 3 would generate approximately 1,596 students from the residential uses and 84 students from families of employees associated with the commercial uses for a combined total of 1,680 students.^{17,18} According to the City's GP FIER, DSUSD has had steady, but overall decreasing enrollment rates over the past few years and does not have any immediate plans to expand educational facilities. However, it was reported that DSUSD would require the need for 3.07 elementary schools, 1.45 middle schools, and 1.40 high schools with the increase of 2,609 students, 1,594 students, and 3,370 for those facilities respectively.¹⁹ Therefore, the addition of students generated by this Alternative would potentially cause the three nearby schools to operate over their capacities. Meanwhile, the Project would not include any student generation. As such, Alternative 3 would result in increased impacts to school services compared to the proposed Project.

Library Services

Alternative 3, like the Project, would increase demand on the Indio Public Library for library services. This Alternative would create additional demand for library services due to the increase in residential dwelling units and commercial use, resulting in an increase in service population under this Alternative when compared to the Project. The Indio Public Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the

17 4,560 total residents * 0.35 student generation rate = 3,293 students. 240 total employees * 0.35 student generation rate = 84 students.

18 DSUSD. *Fee Justification Report for New Residential and Commercial/Industrial Development*. May 18, 2022. Available at: <https://www.dsusd.us/common/pages/DisplayFile.aspx?itemId=51180085>. Accessed December 2022.

19 DSUSD. *Fee Justification Report for New Residential and Commercial/Industrial Development*. May 18, 2022. Table VIII. Available at: <https://www.dsusd.us/common/pages/DisplayFile.aspx?itemId=51180085>. Accessed December 2022.

appropriate jurisdiction. Therefore, Alternative 3 would not avoid or substantially lessen a significant impact to library services that would occur with the proposed Project.

Recreation

Alternative 3 would implement similar uses on the Project Site, but at an increased intensity. Thus, Alternative 3 would result in additional demand for parks and recreational facilities due to the increase in residents and visitors on the Project Site when compared to the Project. Like the Project, implementation of Alternative 3 would provide recreation and open spaces throughout the Project Site available for residents and those visiting the Project Site. However, it is unlikely that the Alternative would contain the same level of recreation as proposed by the Project. Alternative 3 would allow for less space for recreation due to the increased number of residential units onsite. This decrease in recreational opportunity on the site would create an increased demand on existing City parks and recreational facilities. Applicable mitigation would be implemented when compared to the Project, which includes payment of parkland fees to minimize recreational impacts. Therefore, Alternative 3 would not avoid or substantially lessen any significant impacts to recreational facilities that would occur with the proposed Project.

Transportation

Under full implementation, the Project would generate 6,470 total net new trips. Total VMT for Alternative 3 would also be increased compared to the proposed Project. As such, Alternative 3 would result in increased impacts to transportation compared to the proposed Project and would not avoid or substantially reduce any significant impacts from the proposed Project.

Utilities and Service Systems

Water Service and Supply

Alternative 3 would result in a total of 4,560 residents and 120,000 square feet of commercial space, which would have a corresponding water demand of 286.49 acre-feet per year (afy).²⁰ The water demand associated with this Alternative would result in approximately the same amount of water demand when compared to the Project's water demand of 280.93 afy. The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period under buildout of the General Plan. Like the Project, this Alternative would require additional water infrastructure to serve the Project Site. Alternative 3 would result in similar less than significant impacts to water service when compared to the Project. Therefore, Alternative 3 would not avoid or substantially lessen any significant impacts to water service and supply.

²⁰ 4,560 residents * 55 gallons per person = 250,800 gallons per person per day = 280.93 AFY; 120,000 square feet * 15.1 gal/sf/yr = 1,812,000 gal/yr = 5.56 AFY

Wastewater Collection and Treatment

Alternative 3 would have a total of 1,500 residential units and 120,000 square feet of commercial space. Based on the number of EDUs for this Alternative and the estimated 3.04 persons per household, this Alternative would generate approximately 0.26 million gallons per day (MGD) of wastewater, approximately 0.11 MGD more than the Project.²¹ Similar to the Project, wastewater generated by this Alternative would be treated at the water reclamation plant (WRP) No. 7 and would be less than significant with incorporation of applicable project design. Therefore, Alternative 3 would not avoid or substantially lessen any significant impacts to wastewater collection and treatment that would occur with the proposed Project.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Alternative 3 would increase the number of residential units and add commercial space, as compared to the Project, but would continue to develop the whole Project Site and thus would require the same extension of infrastructure. Similar to the Project, Alternative 3 would require submittal, review, and approval of plans through the City and relevant utility providers, which would ensure future utility demands would be manageable. Any further need for infrastructure upgrades associated with Alternative 3 would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for Alternative 3 through the City and the appropriate regulatory agencies and utility providers. Impacts under this Alternative related to electricity, natural gas, and telecommunications infrastructure would be similar to the Project. Therefore, Alternative 3 would not avoid or substantially lessen significant impacts to dry utilities that would occur with the proposed Project.

Solid Waste

Alternative 3 would have a total of 1,500 residential dwelling units adding approximately 4,560 residents and 240 employees. **Table 6.0-6: Solid Waste Generation of Alternative 3**, indicates that this Alternative would generate approximately 5,492.5 tons per year, which is approximately 2,535.5 more tons per year more than the Project. In comparison to the Project's approximate 8.1 tons of solid waste per day, Alternative 3 would contribute 6.9 additional tons of solid waste per day.

21 (3.04 persons/household * 55 gallons/per/day) * 1,500 dus = 250,800 gal/day; 4,964.38 gal/day commercial.

**TABLE 6.0-6
SOLID WASTE GENERATION OF ALTERNATIVE 3**

Building Type	Units	Rate	Solid Waste (tons/year)
Residential	4,560 residents	6.0 lb/resident/day	4,993.2
Commercial	240 employees	11.4 pounds/employee/day	499.3
Total			5,492.5

Source: CalRecycle. California's 2016 Per Capita Disposal Rate Estimate.

<https://calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/2016-2/>. Accessed December 2022.

Note: The solid waste generation rates do not take into account required solid waste reductions.

There is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. While this Alternative and the Project would increase demand for waste disposal services, incorporation of similar project design would reduce impacts related to solid waste for both to less than significant levels.

Summary of Comparative Impacts

Alternative 3 would result in incrementally greater impacts when compared to the Project with respect to air quality, greenhouse gas emissions, schools, transportation, water service and supply, wastewater, and solid waste. Impacts related to Alternative 3 would be similar to agriculture, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. No significant impacts would be avoided or substantially reduced with Alternative 3.

Relationship to Project Objectives

Alternative 3 would develop the Project Site consistent with the type and intensity of land uses allowed by the City's previous zoning designations for the Project Site, which included commercial uses in the southeast portion of the site. While Alternative 3 would implement a high-quality master-planned community with both residential and commercial uses on Desert Retreat, one of the last remaining, large, centrally located, vacant parcels in the City, Alternative 3 would not provide a highly amenitized, age-restricted community that aligns with and compliments the adjacent Sun City Shadow Hills Community. While the Project objectives listed below would be at least partially achieved with this Alternative, it would not avoid or substantially lessen any significant environmental effects of the proposed Project.

- Develop a thoughtfully planned and integrated master-planned residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.

- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Provide a safe and efficient circulation system;
- Provide water, sewer, and drainage systems to adequately service the project;

Alternative 4 – Residential Project with Golf Course

Alternative Description

The Residential Project with Golf Course Alternative (Alternative 4) examines the impacts that would result from the development of a community similar to the existing Sun City Shadow Hills Communities located south and east of the Project Site. This alternative includes the development of a golf course on 80 acres of the Project Site, a Community Clubhouse with recreation facilities similar to the one included in the proposed Project on 26 acres, 1,500 age-restricted homes on 270 acres with 2 acres of the perimeter of the site dedicated as public right-of-way similar to the Project. The homes in this alternative would be age-restricted.

Comparative Impact Evaluation

Agriculture and Forestry

Under Alternative 4, the site would be developed with 1,500 residential units, an 80-acre golf course, and a Community Clubhouse. Both the Alternative and the Project would result in less than significant impacts to agricultural resources. Agriculture impacts would be less than significant and would be similar to the impacts of developing the Project as proposed. Alternative 4 would not avoid or substantially lessen a significant impact to agricultural resources that would occur with the proposed Project.

Air Quality

Construction activities for both Alternative 4 and the Project would produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil-disturbing activities. It is anticipated that grading activities for the entire Project site would remain similar to the Project. As discussed in **Section 5.2: Air Quality**, mass grading activities would exceed the regional SCAQMD threshold for NO_x , and the localized SCAQMD thresholds for PM_{10} and $PM_{2.5}$ while the remaining construction emissions would be below SCAQMD thresholds. However, emissions from mass grading would be reduced to less than significant with mitigation measure **MM AQ-1** which requires to use of Tier 4 construction equipment. This mitigation would also be applied under mass grading activities for

Alternative 4. As Alternative 4 includes similar development compared to the Project, building construction emissions associated with Alternative 4 are anticipated to similar to the Project.

Similar to the Project, operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 4. Source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. As discussed in **Section 5.2: Air Quality**, the Project's operational emissions would not exceed SCAQMD thresholds. The estimated operational emissions based on the proposed uses for Alternative 4 are shown in **Table 6.0-7: Alternative 4 Operational Air Quality Emissions**. As shown, operational emissions would be marginally higher compared to the Project for most criteria pollutants but would not exceed SCAQMD's regional threshold of significance for any criteria pollutants similar to the Project.

TABLE 6.0-7 ALTERNATIVE 4 OPERATIONAL AIR QUALITY EMISSIONS						
Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Alternative 4 Emissions	51	22	241	<1	34	10
Proposed Project Emissions	50	21	236	<1	32	10
Net Difference	1	1	5	<1	2	<1
Alternative 4 Emissions	51	22	241	<1	34	10
<i>SCAQMD Mass Daily Threshold</i>	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compound;

As described previously, the proposed Project would require mitigation to lessen construction and operational air quality impacts to less than significant. Alternative 4 impacts to air quality would be less than significant with comparable mitigation and would be similar in comparison to the Project in this regard. Therefore, Alternative 4 would not avoid or substantially lessen significant air quality impacts that would occur with the proposed Project.

Biological Resources

Under Alternative 4, the Project Site would result in similar grading and disturbance activities as those of the Project. Since this Alternative would result in development of the entire Project Site, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. Under this Alternative, similar mitigation would be needed to reduce any potential significant impacts to a less than significant level. As such, Alternative 4 would result in similar impacts to the proposed Project. Alternative 4 would not, therefore,

avoid or substantially lessen any significant impacts to biological resources that would occur with the proposed Project.

Cultural Resources

Alternative 4 would fully develop the entire Project Site with a mixture of residential and commercial uses, as would the Project. This Alternative would have similar potential to uncover previously unknown historical resources, archeological resources, or human remains. Therefore, there would be comparable impacts to cultural resources, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. The appropriate mitigation before and during construction activities would ensure that development would not result in significant impacts to potential cultural resources. As such, Alternative 4 would result in similar impacts to the proposed Project. Impacts from the proposed Project to cultural resources would be less than significant with comparable mitigation. For these reasons, Alternative 4 would not avoid or substantially lessen any significant impacts to cultural resources that would occur with the proposed Project.

Energy

This Alternative would include a golf course in addition to the proposed uses under the Project, which would result in comparable demand for electricity and transportation fuels during construction, and comparable demand for electricity, natural gas, and transportation fuels during operation. As such, the overall impacts of this alternative would be similar compared to the Project.

Moreover, this Alternative would be constructed and designed in accordance with the most current version of Title 24, California's Energy Efficiency Standards for buildings and the State Energy Conservation Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. Therefore, this alternative would continue to follow local, State, and federal regulatory compliance for energy standards and therefore would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As such, Alternative 4 would result in similar impacts to the proposed Project. Impacts from the proposed Project to energy resources would be less than significant. For these reasons, Alternative 4 would not avoid or substantially lessen a significant impact to energy resources that would occur with the proposed Project.

Geology and Soils

Alternative 4 would involve comparable construction activities, including grading, for the development of the mixture of residential and commercial uses and would result in similar impacts related to erosion and sedimentation on the Project Site. Thus, this Alternative's grading activities would be identical and would result in similar erosion and sedimentation impacts to those of the Project. Any future development within the Project Site would have to comply with the most current CBC requirements for seismicity, liquefaction, subsidence, and expansive soils, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 4 would be

required to develop and implement a SWPPP along with all Project Design Features and Mitigation Measures of the Project pertaining to erosion control plans. For this reason, impacts related to geology and soils conditions with this Alternative would be similar to the Project. Thus, Alternative 4 impacts to geology and soils would be less than significant with comparable mitigation. For these reasons, Alternative 4 would not avoid or substantially lessen any significant impacts related to geology and soils conditions that would occur with the proposed Project.

Greenhouse Gas Emissions

Construction activities for both Alternative 4 and the Project would produce combustion GHG emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. However, as Alternative 4 includes comparable development to the Project, construction GHG emissions associated with building construction are anticipated to be similar compared to the Project.

Alternative 4 would generate GHG emissions from a number of individual sources during postconstruction (operational) use of the buildings and related activities (e.g., landscape maintenance). Operational activities under Alternative 4 would differ from the Project, as this Alternative would include a golf course in addition to the proposed uses under the Project. Similar to the Project, operational GHG emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 4. The estimated operational emissions based on the proposed uses for Alternative 4 are shown in **Table 6.0-8: Alternative 4 Operational GHG Emissions**. As shown, operational GHG emissions would be marginally higher compared to the Project.

This Alternative would be required to adhere to regulatory compliance measures designed to reduce GHG emissions such as the CALGreen Code and efficiency regulations adopted by the CEC. Moreover, this alternative would not conflict with applicable plans including CARB's Climate Change Scoping Plan, SCAG's 2020-2045 RTP/SCS, or the City's CAP. As such, this alternative would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Alternative 4 would result in slightly greater impacts to GHG compared to the proposed Project.

**TABLE 6.0-8
ALTERNATIVE 4 OPERATIONAL GHG EMISSIONS**

Source	Unmitigated MTCO _{2e} per year
Alternative 2 Emissions	6,910
Proposed Project Emissions ¹	6,555
Net Difference	355

Notes: GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent.

¹ Proposed project emissions do not include amortized construction emissions as construction was not evaluated for the alternatives.

Hydrology and Water Quality

Similar to the Project, Alternative 4 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of project designs, similar to the Project, would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff.

With the implementation of specified BMPs and detention features, the proposed Project would not substantially increase the rate or amount of surface runoff from the site and there would be flooding impacts as a result. Alternative 4 would result in similar less than significant hydrology and water quality impacts as the Project. Therefore, Alternative 4 would not avoid or substantially lessen any significant hydrology and water quality impacts that would occur with the proposed Project.

Land Use and Planning

Implementation of Alternative 4 would develop the Project Site with a mixture of residential and open space/recreational uses. This Alternative would include up to 1,500 residential units, a Community Clubhouse, and an 80-acre golf course. Alternative 4 would include similar residential units compared to the Project as well as include a Community Clubhouse. Additionally, this Alternative would include an 80-acre golf course.

Alternative 4, like the Project, would not divide an established community and would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, Alternative 4 would not avoid or substantially lessen any significant impacts to land use and planning that would occur with the proposed Project.

Noise

Both Alternative 4 and the Project would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, graders, pavers, rollers, and scrapers. Construction under Alternative 4 would differ from the Project, as this Alternative would include an 80-acre golf course. As discussed in **Section 5.11: Noise**, the noise level increases from truck trips would be below the significance threshold of 5 dBA increase above ambient. Construction noise would be less than significant for both this alternative and the proposed Project.

Similar to the Project, implementation of applicable project design and Mitigation Measures would require sound attenuation measures be incorporated into the design of stationary noise sources to minimize noise levels which would reduce potentially significant noise impacts to a less than significant

level. Thus, Alternative 4 impacts to noise would be less than significant with comparable mitigation but would not avoid or substantially lessen any significant impacts to noise.

Population and Housing

Under Alternative 4, the Project Site would include a total of 1,500 residential units, a Community Clubhouse with recreation facilities on 26 acres, and an 80-acre golf course. Accordingly, the Alternative would contain the same number of age restricted residential units and 26-acre Community Clubhouse as the Project, as well as an 80-acre golf course not included in the Desert Retreat Specific Plan. Alternative 4 would result in the same 2,700 residents as the Project.²² Additionally, this Alternative would generate approximately 12 employees²³ related to the golf course use.²⁴

Similar to the Project, this Alternative would be consistent with City and SCAG population and employment growth projections and policies. However, the addition of the golf course to Alternative 4 would increase demand on the existing utility infrastructure that services the area when compared to the Project. Therefore, Alternative 4 would not avoid or substantially lessen any significant impacts to population and housing that would occur with the proposed Project.

Public Services

Fire Protection and Emergency Medical Services

Both Alternative 4 and the Project would increase demand on RCFD for fire protection and emergency services due to the development of residential and open space/recreation uses on the Project Site. The additional residents and the addition of employees would result in greater service population associated with Alternative 4 would be anticipated to result in an increase in the number of calls for service when compared to the Project. Construction of Alternative 4 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Therefore, implementation of this Alternative would not result in the need for new or the physical alternation to any existing governmental facility in regard to fire protection and emergency services, and impacts would be less than significant. Therefore, Alternative 4 would not avoid or substantially lessen a significant impact to fire protection and emergency medical services that would occur with the proposed Project.

22 2.025 persons per household × 1,316 units = 2,665 residents.

23 95 acres × 0.15 employee/acre = 14 employees.

24 County of Riverside. *County of Riverside Environmental Impact Report No. 521*. Public Review Draft, February 2015. "Section 4.1: Environmental Assumptions and Methods." Table 4.1-D; 1 employee / 500 square feet. https://rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/04-01_EnvironAssumptions.pdf. Accessed December 2022.

Law Enforcement Services

Alternative 4, like the Project, would increase demand on the Police Department for law enforcement services due to the development of residential and commercial uses on the site. This Alternative would create additional calls for service due to the removal of age restriction to the development and addition of commercial use. The resultant increase in service population under this Alternative would be greater than when compared with the Project. Like the Project, this Alternative would also incorporate project designs that would enhance security and access throughout the site to reduce needed service from the Police Department. However, in order to accommodate the Alternative's increased demand for services, the Police Department would require additional officers to service the site. Mitigation Measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Therefore, Alternative 4 would not avoid or substantially lessen any significant impacts to fire protection and emergency medical services that would occur with the proposed Project.

Library Services

Alternative 4, like the Project, would increase demand on the Indio Public Library for library services. This Alternative would create additional demand for library services due to the increase in residential dwelling units and commercial use, resulting in an increase in service population under this Alternative when compared to the Project. The Indio Public Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Therefore, Alternative 4 would not avoid or substantially lessen a significant impact to library services that would occur with the proposed Project.

Recreation

Alternative 4 would implement similar uses on the Project Site. Thus, Alternative 4 would result in similar demand for parks and recreational facilities due to the increase in residents and visitors on the Project Site when compared to the Project. Alternative 4 would include similar recreation and open space components as the Project, such as the Community Clubhouse; however, it would also include an 80-acre golf course. Like the Project, implementation of Alternative 4 would provide recreation and open spaces throughout the Project Site available for residents and those visiting the Project Site. Applicable mitigation would be implemented when compared to the Project, which includes payment of parkland fees to minimize recreational impacts. Additionally, these recreational facilities would be constructed concurrently with development of the Alternative and would contribute to overall construction impacts. Overall, Alternative 4 would result in less than significant impacts, similar to those of the Project. Therefore, Alternative 4 would not avoid or substantially lessen a significant impact to recreational facilities that would occur with the proposed Project.

Transportation

Under full implementation, the Project would generate 6,470 total net new trips. Total VMT for Alternative 4 would be greater compared to the proposed Project as a result of the on-site golf course, which would be available to the public, but would not be considered a significant effect. As such, Alternative 4 would result in similar impacts to transportation compared to the proposed Project and would not avoid or substantially reduce any significant transportation impacts.

Utilities and Service Systems

Water Service and Supply

Alternative 4 would include similar residential units and a Community Clubhouse compared to the Project. However, Alternative 4 would include an 80-acre golf course. The water demand associated with this Alternative would be approximately 1,531.95 afy.^{25,26} The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. Like the Project, this Alternative would require additional water infrastructure to serve the site. The water demand associated with this Alternative would result in an increase of 311.42 afy when compared to the Project's water demand of 1,220.53 afy. Alternative 4 would result in additional impacts to water service when compared to the Project. Impacts associated with the Project would be less than significant with incorporation of applicable project designs. Therefore, Alternative 4 would not avoid or substantially lessen a significant impact to water service and supply that would occur with the proposed Project.

Wastewater Collection and Treatment

Alternative 4 would have a total of 1,500 residential dwelling units, a Community Clubhouse, as well as an 80-acre golf course. Based on the amount of water demand, this Alternative would generate approximately 1.37 million gallons per day (MGD) of wastewater, approximately 0.28 MGD more than the Project. Similar to the Project, wastewater generated by this Alternative would be treated at the water reclamation plant (WRP) No. 7. Accordingly, available treatment capacity would be provided, and impacts would be less than significant under this Alternative with incorporation of applicable project design. Therefore, Alternative 4 would not avoid or substantially lessen a significant impact to wastewater collection and treatment that would occur with the proposed Project.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Alternative 4 would have the same number of residential units and Community Clubhouse, as compared to the Project, but would also include an 80-acre golf course. Similar to the Project, Alternative 4 would require submittal, review, and approval of plans through the City and relevant utility providers, which

25 (Residential) 4,560 residents * 55 gallons per person = 250,800 gallons per person per day (+352.38 for outdoor potable uses) = 663.31 AFY; (Clubhouse and other outdoor recreation demands) 576.12 afy; (golf course) 80 acres * 1,191,481.34 gal/yr = 292.52 afy

26 California Air Pollution Control Officers Association. "CalEEMod. User's Guide for CalEEMod Version 2020.4.0." Appendix D: Default Data Tables. <http://www.aqmd.gov/caleemod/user%27s-guide>. Accessed December 2022.

would ensure future utility demands would be manageable. Any further need for infrastructure upgrades associated with Alternative 4 would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for Alternative 4 through the City and the appropriate regulatory agencies and utility providers. Impacts under this Alternative related to electricity, natural gas, and telecommunications infrastructure would be similar to the Project and impacts would remain less than significant. Therefore, Alternative 4 would not avoid or substantially lessen a significant impact to dry utilities that would occur with the proposed Project.

Solid Waste

Alternative 4 would have a total of 1,500 residential dwelling units. **Table 6.0-9: Solid Waste Generation of Alternative 4**, indicates that this Alternative would generate approximately 2,957 tons per year. Additionally, the golf course would be anticipated to generate some degree of solid waste, but because substantially more of the Project Site is proposed for residential development instead of recreational open space, it is difficult to make a direct comparison of the total solid waste generation resulting from this Alternative's open space/recreational uses. Further, waste generated from this Alternative's open space/recreational uses is not anticipated to substantially change the conclusions herein. This Alternative would generate roughly similar tons per year of solid waste compared to the Project.

Building Type	Units	Rate	Solid Waste (tons/year)
Residential	2,700 residents	6.0 lb/resident/day	2,957
Total			2,957

Source: CalRecycle. California's 2016 Per Capita Disposal Rate Estimate.

<https://calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/2016-2/>. Accessed December 2022.

Note: The solid waste generation rates do not take into account required solid waste reductions.

There is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. While this Alternative and the Project would increase demand for waste disposal services, incorporation of similar project design would reduce impacts related to solid waste for both to less than significant levels. Therefore, Alternative 4 would not avoid or substantially lessen any significant solid waste impacts to that would occur with the proposed Project.

Summary of Comparative Impacts

Alternative 4 would result in incrementally greater impacts when compared to the Project with respect to transportation, water service and supply, wastewater, and solid waste. Impacts related to Alternative 4 would be similar to agriculture, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library

facilities, and dry utilities. No significant impacts would be avoided or substantially reduced with Alternative 4.

Relationship to Project Objectives

Alternative 4 considers the development of a golf course on 80 acres of the Project Site, a Community Clubhouse with recreation facilities similar to the one included in the proposed Project on 26 acres, 1,500 age-restricted homes on 270 acres with 2 acres of the perimeter of the site dedicated as public right-of-way similar to the Project. Similar to the Project, the Alternative proposed an age-restricted residential development, with the incorporation of open space and recreational uses. No significant impacts would be avoided or substantially reduced. The following Project objectives would be met with this Alternative:

- Develop a thoughtfully planned and integrated master-planned residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system;
- Provide water, sewer, and drainage systems to adequately service the project

While this Alternative would meet the project objectives, it does not avoid or substantially reduce any significant environmental effects of the Project and would require additional water resources for the golf course.

Alternative 5 – Reduced Density

Alternative Description

The Reduced Density Alternative (Alternative 5) examines the impacts that would result from the development of the 378-acre project site at a lower density than the proposed Project, which has a gross density of 3 Dwelling Units per acre. This alternative assumes development with residential units at a gross density of 3 Dwelling Units per acre. This density would result in 1,135 single-family homes being developed on the site. The homes in this alternative would be age-restricted.

Comparative Impact Evaluation

Agriculture and Forestry

Under Alternative 5, the site would be developed similar to the Project. Both the Alternative and the Project would result in less than significant impacts to agricultural resources. Agriculture impacts would be less than significant and would be similar to the impacts of developing the Project as proposed. Alternative 5 would not avoid or substantially lessen any significant impacts to agricultural resources that would occur with the Project.

Air Quality

Construction activities for both Alternative 5 and the Project would produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. Grading activities produce fugitive dust emissions (PM₁₀ and PM_{2.5}) from soil-disturbing activities. It is anticipated that grading activities for the entire Project site would remain similar to the Project. As discussed in **Section 5.2: Air Quality**, mass grading activities would exceed the regional SCAQMD threshold for NO_x, and the localized SCAQMD thresholds for PM₁₀ and PM_{2.5} while the remaining construction emissions would be below SCAQMD thresholds. However, emissions from mass grading would be reduced to less than significant with mitigation measure **MM AQ-1** which requires to use of Tier 4 construction equipment. This mitigation would also be applied under mass grading activities for Alternative 5. As Alternative 5 includes less development compared to the Project, construction emissions associated with building construction and architectural coatings are anticipated to be lower than the Project.

Similar to the Project, operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 5. Source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. As discussed in **Section 5.2: Air Quality**, the Project's operational emissions would not exceed SCAQMD thresholds. The estimated operational emissions based on the proposed uses for Alternative 5 are shown in **Table 6.0-10: Alternative 5 Operational Air Quality Emissions**. As described previously, the proposed Project would require mitigation to lessen the construction and operational air quality impacts to less than significant. Alternative 5 operational emissions would be lower compared to the Project for all criteria pollutants. Additionally, Alternative 5 would not exceed SCAQMD's regional thresholds when compared to the Project. Alternative 5 would incrementally lessen the air quality impacts identified for the proposed Project, but because the Project's impacts are mitigated to a level of less-than-significant, this Alternative will not avoid or substantially lessen any significant air quality impacts of the Project.

**TABLE 6.0-10
ALTERNATIVE 5 OPERATIONAL AIR QUALITY EMISSIONS**

Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	pounds/day					
Alternative 5 Emissions	38	16	178	<1	24	7
Proposed Project Emissions	50	21	236	<1	32	10
Net Difference	(12)	(5)	(58)	(<1)	(8)	(3)
Alternative 5 Emissions	38	16	178	<1	24	7
<i>SCAQMD Mass Daily Threshold</i>	55	55	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; SO_x = sulfur oxides; VOC = volatile organic compound;

Biological Resources

Under Alternative 5, the Project Site would result in similar grading and disturbance activities as those of the Project. Since this Alternative would result in development of the entire Project Site, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. Under this Alternative, similar mitigation would be needed to reduce any potential significant impacts to a less than significant level. As such, Alternative 5 would result in similar impacts to the proposed Project. Alternative 5 impacts to biological resources would be less than significant with comparable mitigation and would be similar in comparison to the proposed Project's less than significant impacts with mitigation. Alternative 5 would not avoid or substantially lessen any significant impacts to biological resources that would occur with the proposed Project.

Cultural Resources

Alternative 5 would fully develop the entire Project Site with residential uses, as would the Project. This Alternative would have similar potential to uncover previously unknown historical resources, archeological resources, or human remains. Therefore, there would be comparable impacts to cultural resources, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. The appropriate mitigation before and during the construction activities would ensure that development would not result in significant impacts to potential cultural resources. As such, Alternative 5 would result in similar impacts to the proposed Project. Impacts from the proposed Project to cultural resources would be less than significant with comparable mitigation. For these reasons, Alternative 5 would not avoid or substantially lessen any significant impacts to cultural resources that would occur with the proposed Project.

Energy

Under this alternative, there would be up to 1,135 single-family homes, which would result in an increased demand for electricity, and natural gas consumption for both construction and operation. The Project is considering not only energy measures that meet regulatory compliance of local, State, and federal regulations but would also include additional measures for water and energy conservation, which this alternative would not meet all of these encompassing features. However, this alternative would be constructed and designed in accordance with the most current version of Title 24, California's Energy Efficiency Standards for buildings and the State Energy Conservation Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. This alternative would have a reduced fuel consumption due to having fewer vehicle trips compared to the Project. As such, the overall impacts of this alternative would be reduced as compared to the Project due to a decrease energy consumption, and would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As impacts from the proposed Project to energy resources would also be less than significant, Alternative 5 would not avoid or substantially lessen any significant impacts to energy resources that would occur with the proposed Project.

Geology and Soils

Alternative 5 would involve comparable construction activities, including grading, for the development of the mixture of residential and commercial uses and would result in similar impacts related to erosion and sedimentation on the Project Site. Thus, this Alternative's grading and excavation activities would result in similar erosion and sedimentation impacts to those of the Project. Any development within the Project Site associated with Alternative 5 would have to comply with the CBC requirements for seismicity, liquefaction, subsidence, and expansive soils, similar to the Project, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 5 would be required to develop and implement a SWPPP along with all project designs and Mitigation Measures of the Project pertaining to erosion control plans. For this reason, the geology and soils impacts of this Alternative would be similar to the Project. Thus, Alternative 5 impacts to geology and soils would be less than significant with comparable mitigation. For these reasons, Alternative 5 would not avoid or substantially lessen any significant impacts related to geology and soils that would occur with the proposed Project.

Greenhouse Gas Emissions

Construction activities for both Alternative 5 and the Project would produce combustion GHG emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. However, as Alternative 5 includes less development compared to the Project, construction GHG emissions associated with building construction are anticipated to be lower than the Project.

Alternative 5 would generate GHG emissions from a number of individual sources during postconstruction (operational) use of the buildings and related activities (e.g., landscape maintenance). Operational activities under Alternative 5 would differ from the Project, as this Alternative includes less development compared to the Project. Similar to the Project, operational GHG emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 5. The estimated operational emissions based on the proposed uses for Alternative 5 are shown in **Table 6.0-11: Alternative 5 Operational GHG Emissions**. As shown, operational GHG emissions of this Alternative would be incrementally reduced as compared to the Project.

This alternative would be required to adhere to regulatory compliance measures designed to reduce GHG emissions such as the CALGreen Code and efficiency regulations adopted by the CEC. Moreover, this alternative would not conflict with applicable plans including CARB's Climate Change Scoping Plan, SCAG's 2020-2045 RTP/SCS, or the City's CAP. As such, this alternative would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Alternative 5 would reduce GHG emissions as compared to the proposed Project. However, Alternative 5 impacts to GHG would not avoid or substantially reduce any significant GHG impacts because impacts from the Project are also considered less than significant with the implementation of applicable mitigation measures.

**TABLE 6.0-11
ALTERNATIVE 5 OPERATIONAL GHG EMISSIONS**

Source	Unmitigated MTCO _{2e} per year
Alternative 2 Emissions	4,961
<i>Proposed Project Emissions¹</i>	6,555
Net Difference	(1,594)

Notes: GHG = greenhouse gas; MTCO_{2e} = metric tons of carbon dioxide equivalent; () = indicates negative value.

¹ *Proposed project emissions do not include amortized construction emissions as construction was not evaluated for the alternatives.*

Hydrology and Water Quality

Similar to the Project, Alternative 5 would require the construction of new storm-drain systems, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of project designs, similar to the Project, would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project Site would increase the amount of impervious surfaces resulting in an increase of long-term surface water runoff.

With the implementation of specified BMPs and detention features, the proposed Project would not substantially increase the rate or amount of surface runoff from the site and there would be flooding impacts as a result. Alternative 5 would result in similar less than significant hydrology and water quality

impacts as the Project. Therefore, Alternative 5 would not avoid or substantially lessen any significant impacts to hydrology and water quality that would occur with the proposed Project.

Land Use and Planning

Implementation of Alternative 5 would be developed with the same residential use as the Project, but with a reduction in density. A total of 1,135 residential units would be developed on the Project Site compared to the Project's 1,500 residential dwelling units. The difference would amount to 365 fewer residential units.

Alternative 5, like the Project, would not divide an established community. However, because this Alternative does not comply with the allowed density range of 4 - 8 units per acre, this Alternative would conflict with an applicable land use plan, policy, or regulation and would be inconsistent with the State legislation restricting reductions in residential densities under SB 330. Therefore, Alternative 5 would not avoid or substantially lessen any significant land use and planning impacts that would occur with the proposed Project and would have a significant and unmitigated adverse impact.

Noise

Both Alternative 5 and the Project would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, graders, pavers, rollers, and scrapers. Construction noise would be less than significant for both this alternative and the proposed Project.

Impacts related to operational roadway noise would be less than those under the Project, however, impacts would remain less than significant. Similar to the Project, implementation of applicable project designs and Mitigation Measures would reduce potentially significant noise impacts to a less than significant level under Alternative 5. For these reasons, Alternative 5 would not avoid or substantially lessen any significant noise impacts that would occur with the proposed Project.

Population and Housing

Under Alternative 5, the Project Site would involve a reduction in intensity of residential uses, proving a total of 1,135 residential units, which is 365 units less than the Project. Alternative 5 would result in 2,043 residents,²⁷ which is 657 fewer residents than the Project.

Similar to the Project, this Alternative would be consistent with City and SCAG population and employment growth projections and policies. However, the reduction in on-site residents would result in a reduced demand on the existing utility infrastructure that services the area when compared to the Project. Neither this alternative nor the Project would result in significant population and housing

²⁷ 2.025 persons per household × 890 units = 1,802 residents

impacts but, as noted previously, this reduction in residential development does conflict with both the General Plan and California's current housing policies.

Public Services

Fire Protection and Emergency Medical Services

Both Alternative 5 and the Project would increase demand on RCFD for fire protection and emergency services due to the development of residential, hotel, commercial, and open space uses on the Project Site. The reduction of 365 residential dwelling units and resultant service population associated with Alternative 5 would be anticipated to result in a reduction in the number of calls for service when compared to the Project. Construction of Alternative 5 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Like the proposed Project, implementation of this Alternative would not result in the need for new or the physical alternation to any existing governmental facility in regard to fire protection and emergency services, and impacts would be less than significant. Therefore, Alternative 5 would not avoid or substantially lessen a significant impact to fire protection and emergency medical services that would occur with the proposed Project.

Law Enforcement Services

Alternative 5, like the Project, would increase demand on the Police Department for law enforcement services due to the development of residential, open space, and mixed-use hotel and commercial uses on the site. While this Alternative would still create additional calls for service, the reduction in residential dwelling units and resultant reduction in service population under this Alternative when compared with the Project would reduce demand on the Police Department. Like the Project, this Alternative would also incorporate project designs that would enhance security and access throughout the site to reduce needed service from the Police Department. However, in order to accommodate the Alternative's increased demand for services, the Police Department would require additional officers to service the site. Mitigation Measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Alternative 5 would not avoid or substantially lessen a significant impact to fire protection and emergency medical services that would occur with the proposed Project.

Library Services

Alternative 5, like the Project, would increase demand on the City of Indio Public Library for library services. While this Alternative would create additional demand for library services, the reduction in residential dwelling units and resultant decrease in service population under this Alternative when compared to the Project would therefore result in reduced demand on library services when compared to the Project. The Indio Public Library has indicated that it currently has sufficient capacity to

accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Alternative 5 would not avoid or substantially lessen a significant impact to library services that would occur with the proposed Project.

Recreation

Alternative 5 would implement similar uses on the Project Site, but at a reduced intensity. Thus, Alternative 5 would result in an incrementally reduced demand for parks and recreational facilities when compared to the Project. Like the Project, implementation of Alternative 5 would provide recreation and open spaces throughout the Project Site available for residents and those visiting the Project Site. This Alternative's reduction in residential development on the site would involve the ability to integrate more space for recreational opportunities within the Alternative's land use design. This increase in recreational opportunity on the site would help minimize the increased demand on existing City parks and recreational facilities as a result of the increased population generation. Applicable mitigation would be implemented which includes payment of parkland fees to minimize recreational impacts. Alternative 5 would incrementally reduce impacts but would not avoid or substantially lessen any significant impacts to recreational facilities, as compared with the proposed Project.

Traffic and Transportation

Alternative 5 would reduce the number of residential units when compared to the Project. Alternative 5 would result in fewer net new trips than the Project and would result in incrementally less VMT and other transportation impacts associated with this Alternative. As such, Alternative 5 would reduce transportation impacts in comparison to the proposed Project. However, impacts from the proposed Project to transportation would be less than significant and for these reasons, while Alternative 5 would incrementally reduce but would not avoid any significant transportation impacts.

Utilities and Service Systems

Water Service and Supply

Alternative 5 would reduce the number of residential units when compared to the Project but would continue to develop the whole Project Site. The water demand associated with this Alternative would be approximately 212.57 afy.²⁸ The water demand associated with this Alternative would result in a decrease of 68 afy when compared to the Project's water demand of 280 afy. The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. Since the water demand associated with this Alternative is less than the Project water demand, Alternative 5 would result in an incremental reduction in total water use but would require the same extension of infrastructure. Impacts associated with the Project would be less than significant with

²⁸ 3,450.4 residents * 55 gallons per person = 189,772 gallons per person per day = 212.57 AFY.

incorporation of applicable project designs. However, Alternative 5 would not avoid or substantially lessen any significant impacts to water service and supply that would occur with the proposed Project.

Wastewater Collection and Treatment

Under Alternative 5, the Project Site would be developed according to the Project's land use plan, but with a reduction in the intensity of residential uses. Based on the water demand, this Alternative would generate approximately 0.19 million gallons per day (MGD) of wastewater, approximately 0.06 MGD more than the Project. Similar to the Project, wastewater generated by this Alternative would be treated at the water reclamation plant (WRP) No. 7. Accordingly, available treatment capacity would be provided, and impacts would be less than significant under this Alternative with incorporation of applicable project design. Alternative 5 would not, therefore, avoid or substantially lessen any significant impacts to wastewater collection and treatment that would occur with the proposed Project.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

Alternative 5 would reduce the number of residential units and other land uses when compared to the Project but would continue to develop the whole Project Site and thus would require the same extension of infrastructure. Similar to the Project, Alternative 5 would require submittal, review, and approval of plans through the City and relevant utility providers, which would ensure future utility demands would be manageable. Any further need for infrastructure upgrades associated with Alternative 5 would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for Alternative 5 through the City and the appropriate regulatory agencies and utility providers. Impacts under this Alternative related to electricity, natural gas, and telecommunications infrastructure would be similar to the Project and impacts would remain less than significant. Alternative 5 would not, therefore, avoid or substantially lessen any significant impacts to dry utilities that would occur with the proposed Project.

Solid Waste

As mentioned previously, under Alternative 5, the Project Site would be developed according to the Project's land use plan, but with a reduction in the intensity of residential uses. Alternative 5 would have a total of 1,135 residential dwelling units. **Table 6.0-12: Solid Waste Generation of Alternative 5**, indicates that this Alternative would generate approximately 2,237.1 tons per year. This Alternative would generate roughly 719.9 fewer tons per year of solid waste than the Project.

**TABLE 6.0-12
SOLID WASTE GENERATION OF ALTERNATIVE 5**

Building Type	Units	Rate	Solid Waste (tons/year)
Residential	2,043 residents	6.0 lb/resident/day	2,237.1
Total			2,237.1

Source: CalRecycle. California's 2016 Per Capita Disposal Rate Estimate. Available at: <https://calrecycle.ca.gov/lgcentral/goalmeasure/disposalrate/2016-2/>. Accessed December 2022.

Note: The solid waste generation rates do not take into account required solid waste reductions.

There is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. Impacts from the proposed Project to solid waste would be less than significant and, for this reason, while Alternative 5 would reduce solid waste impacts, it would not avoid a significant impact to solid waste that would occur with the Project.

Summary of Comparative Impacts

Alternative 5 would result in an incremental reduction in air quality, greenhouse gas emissions, water service and supply, wastewater collection and treatment, and solid waste impacts during operation of the Project but because the proposed Project's impacts are also mitigated to a level of less-than-significant, Alternative 5 would not avoid or substantially lessen any significant impacts of the Project. Impacts related to Alternative 5 would be similar to those for the Project related to agricultural resources, biological resources, cultural resources, geology and soils, hydrology and water quality, noise, recreation, and dry utilities. Finally, impacts related to land use and planning would be increased due to the conflict with the City's General Plan and California's current housing policies.

Relationship to Project Objectives

Alternative 5 considers the implementation of the land use plan of the Project, but at a reduced intensity throughout the Project Site. Many impacts would be incrementally reduced with this Alternative. However, this Alternative would provide less available housing opportunities for the region, resulting in fewer economic development opportunities and a reduced regional housing development. While Alternative 5 would include all the components of the Project, it would only partially meet all of the following Project objectives:

- Develop a thoughtfully planned and integrated master-planned residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;

- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system; and
- Provide water, sewer, and drainage systems to adequately service the project.

Alternative 6 – Roundabout Entry Intersection

Alternative Description

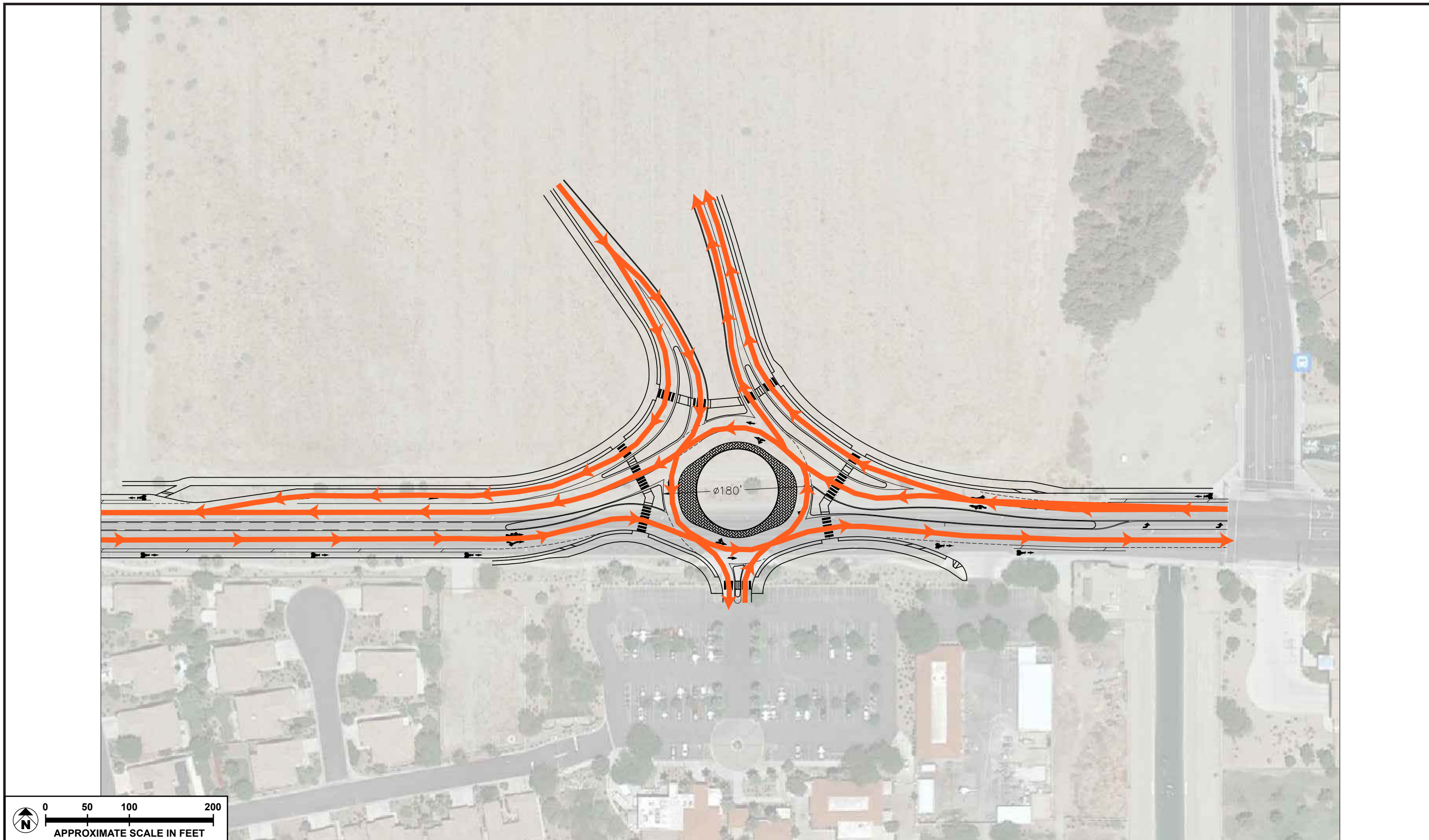
Alternative 6 is an alternative roundabout design for the intersection on Avenue 40 at the main entrance of the Project Site. **Figure 6.0-1: Alternative Roundabout Design - Avenue 40 Main Entrance Intersection** is a conceptual design for a roundabout intersection at this location. All other characteristics of the Project would remain the same with this alternative; the Project would include 1,500 residential units, a Community Clubhouse, and recreation/open space areas.

The roundabout design would include accommodations for pedestrians, bicyclists, golf carts, vehicles, and emergency vehicles. Vehicles would enter the roundabout by yielding to traffic approaching from the left; only right turns are permitted (see **Figure 6.0-2: Alternative Roundabout Design – Vehicle Circulation**). Bicyclists and golf carts would have the option to travel within the roundabout or use the sidewalks and crosswalks surrounding the roundabout. Bicycle exit and entrance ramps are included to allow bicyclists to shift between the bicycle lane and sidewalk prior to and after departing the roundabout (see **Figure 6.0-3: Alternative Roundabout Design – Bicycle and Golf Cart Circulation**). Pedestrians would use the existing sidewalks and new sidewalks on Avenue 40 and around the roundabout (see **Figure 6.0-4: Alternative Roundabout Design – Pedestrian Circulation**). Crosswalks are proposed on all four legs of the roundabout. Safety features including vehicle deflection angles, yield signs/markers, and raised reflective pavement markers would be provided at the pedestrian crossings.



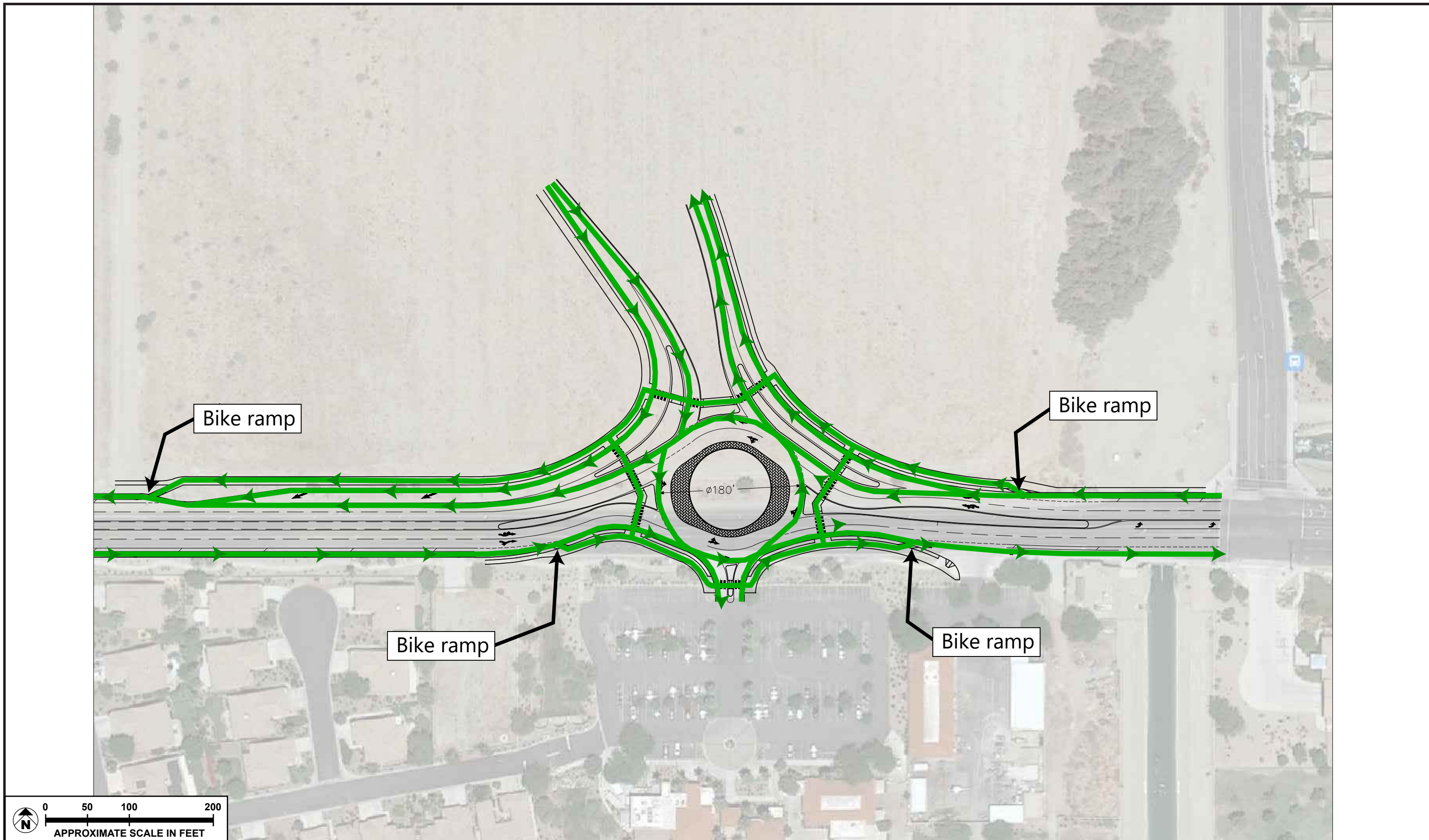
SOURCE: Source: Fehr & Peers – 2022

FIGURE 6.0-1



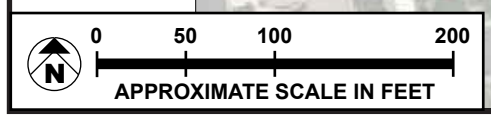
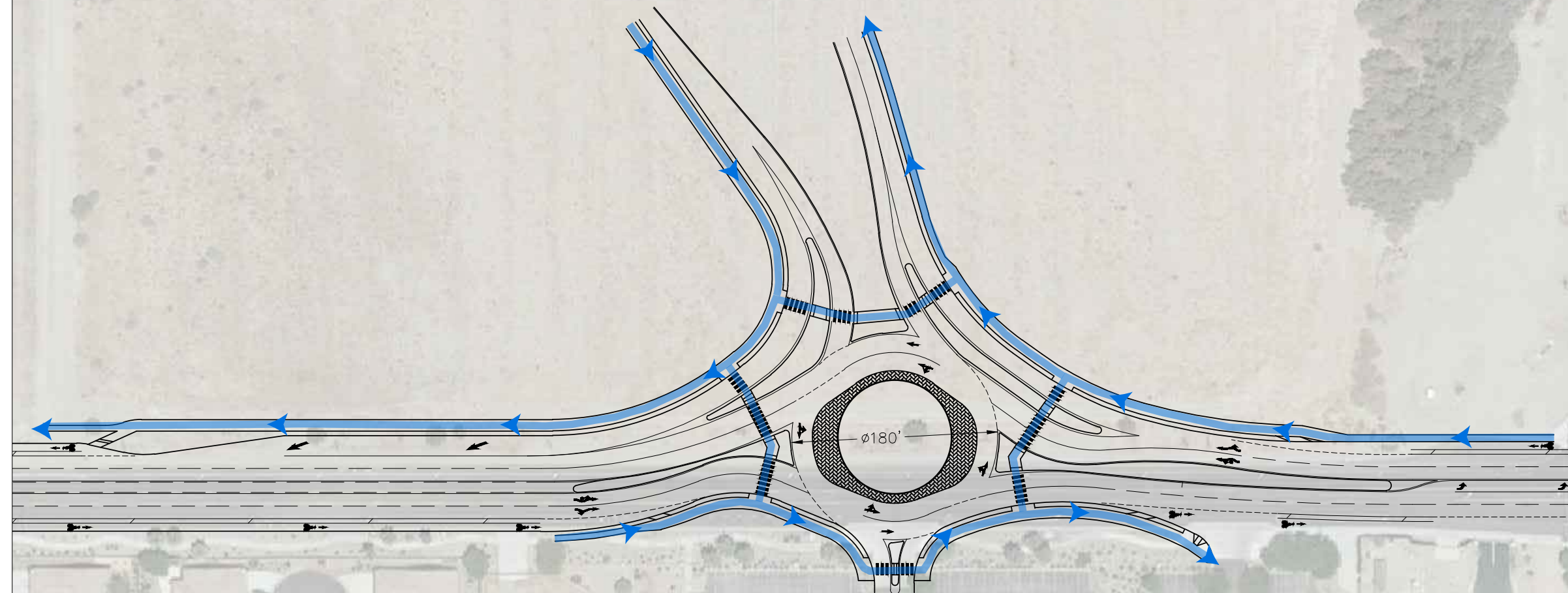
SOURCE: Source: Fehr & Peers – 2022

FIGURE 6.0-2



SOURCE: Source: Fehr & Peers – 2022

FIGURE 6.0-3



SOURCE: Source: Fehr & Peers – 2022

FIGURE 6.0-4

Comparative Impact Evaluation

Agriculture and Forestry

With Alternative 6, the only change to the Project would be constructing the main entrance to the Project from Avenue 40 as a roundabout intersection instead of a four-way signalized intersection. For this reason, both the Alternative and the Project would result in less than significant impacts to agricultural resources. Agriculture impacts would be less than significant and would be similar to the impacts of developing the Project as proposed.

Air Quality

Construction activities for both Alternative 6 and the Project would produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. Grading activities produce fugitive dust emissions (PM₁₀ and PM_{2.5}) from soil-disturbing activities. It is anticipated that grading activities for the entire Project site would remain similar to the Project. As discussed in **Section 5.2: Air Quality**, mass grading activities would exceed the regional SCAQMD threshold for NO_x, and the localized SCAQMD thresholds for PM₁₀ and PM_{2.5} while the remaining construction emissions would be below SCAQMD thresholds. However, emissions from mass grading would be reduced to less than significant with mitigation measure **MM AQ-1** which requires to use of Tier 4 construction equipment. This mitigation would also be applied under mass grading activities for Alternative 6. As Alternative 6 includes similar development compared to the Project, building construction emissions associated with Alternative 6 are anticipated to similar to the Project.

Similar to the Project, operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 6. Source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. As discussed in **Section 5.2: Air Quality**, the Project's operational emissions would not exceed SCAQMD thresholds. The estimated operational emissions for Alternative 6 would be similar to the proposed Project for most criteria pollutants but would not exceed SCAQMD's regional threshold of significance for any criteria pollutants similar to the Project.

As described previously, the proposed Project would require mitigation to lessen construction and operational air quality impacts to less than significant. Alternative 6 impacts to air quality would be less than significant with comparable mitigation and would be similar in comparison to the Project in this regard. With mitigation, neither this alternative nor the proposed Project would result in significant impacts to air quality.

Biological Resources

Alternative 6 and the proposed Project would have similar grading and disturbance activities as the entire Project site would be developed. For this reason, impacts to biological resources would be similar to those of the Project. There would be comparable impacts to sensitive habitat, sensitive plants, and sensitive wildlife, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. Under this Alternative, similar mitigation would be needed to reduce any potential significant impacts to a less than significant level. As such, Alternative 6 would result in similar impacts to the proposed Project. With mitigation, neither this alternative nor the proposed Project would result in significant impacts to biological resources.

Cultural Resources

Alternative 6 and the proposed Project would have similar grading and disturbance activities as the entire Project site would be developed. This Alternative would have similar potential to uncover previously unknown historical resources, archeological resources, or human remains. Therefore, there would be comparable impacts to cultural resources, for which applicable Mitigation Measures would be required to mitigate impacts to a less than significant level. The appropriate mitigation before and during construction activities would ensure that development would not result in significant impacts to potential cultural resources. As such, Alternative 6 would result in similar impacts to the proposed Project. Impacts from the proposed Project to cultural resources would be less than significant with comparable mitigation. With mitigation, neither this alternative nor the proposed Project would result in significant impacts to cultural resources.

Energy

This Alternative would result in comparable demand for electricity and transportation fuels during construction, and comparable demand for electricity, natural gas, and transportation fuels during operation. As such, the overall impacts of this alternative would be similar compared to the Project.

Moreover, this Alternative would be constructed and designed in accordance with the most current version of Title 24, California's Energy Efficiency Standards for buildings and the State Energy Conservation Standards. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. Therefore, this alternative would continue to follow local, State, and federal regulatory compliance for energy standards and therefore would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As such, Alternative 6 would result in similar impacts to the proposed Project. Impacts from the proposed Project to energy resources would be less than significant. Neither this alternative nor the proposed Project would result in significant impacts to energy.

Geology and Soils

Alternative 6 would involve comparable construction activities, including grading, for the development of the Project and would result in similar potential for erosion and sedimentation impacts on the Project Site.

All future development within the Project Site would have to comply with the most current CBC requirements for seismicity, liquefaction, subsidence, and expansive soils, which would mitigate potential significant impacts associated with the existing soils and geology conditions of the site. Alternative 6 would be required to develop and implement a SWPPP along with all Project Design Features and Mitigation Measures of the Project pertaining to erosion control plans. For this reason, impacts related to geology and soils conditions with this Alternative would be similar to the Project. Thus, Alternative 6 impacts to geology and soils would be less than significant with comparable mitigation.

Greenhouse Gas Emissions

Construction activities for both Alternative 6 and the Project would produce similar GHG emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, loose dirt from paved site access roadways, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change. As Alternative 6 includes comparable development to the Project, construction GHG emissions associated with building construction would be similar compared to the Project.

Alternative 6 would generate GHG emissions from a number of individual sources during postconstruction (operational) use of the buildings and related activities (e.g., landscape maintenance). Operational activities under Alternative 6 would be the same compared to the Project, as the same uses would be included, with the only change being the roundabout located at the main Project entrance instead of a standard intersection. Similar to the Project, operational GHG emissions generated by both stationary and mobile sources would result from normal day-to-day activities associated with the uses under Alternative 6. The estimated operational emissions based on the proposed uses for Alternative 6 would be similar to the proposed Project.

This Alternative would be required to adhere to regulatory compliance measures designed to reduce GHG emissions such as the CALGreen Code and efficiency regulations adopted by the CEC. Moreover, this alternative would not conflict with applicable plans including CARB's Climate Change Scoping Plan, SCAG's 2020-2045 RTP/SCS, or the City's CAP. As such, this alternative would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Thus, Alternative 6 impacts to greenhouse gas emissions would be less than significant with comparable mitigation.

Hydrology and Water Quality

Similar to the Project, Alternative 6 would require the construction of a new storm-drain system on the Project site, including retention basins used to retain the 100-year flood event. Construction activities under this Alternative would involve temporary surface water runoff and water quality impacts that would be considered to be potentially significant. However, implementation of project designs, similar to the Project, would minimize surface water runoff from the Project Site and reduce degradation of surface water runoff and water quality, in compliance with the NPDES Program. Development of the Project site would increase the amounts of impervious surfaces resulting in an increase of long-term surface water runoff.

With the implementation of specified BMPs and detention features, the proposed Project would not substantially increase the rate or amount of surface runoff from the site and there would be flooding impacts as a result. Alternative 6 would result in similar less than significant hydrology and water quality impacts as the Project.

Land Use and Planning

Implementation of Alternative 6 would develop the Project Site with residential uses, a Community Clubhouse, and include a roundabout at the entrance of the Project Site. This Alternative would include up to 1,500 age-restricted residential units and a Community Clubhouse, similar to the proposed Project.

Alternative 6, like the Project, would not divide an established community and would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, the proposed roundabout included in Alternative 6 would facilitate traffic calming, while prioritizing all modes of access, including safe pedestrian access across Avenue 40 to the nearby golf course and restaurant. Neither this alternative nor the proposed Project would result in significant impacts to land use and planning.

Noise

Both Alternative 6 and the Project would include earthmoving activities during construction and would involve the use of heavy equipment, such as air compressors, backhoes, generators, graders, pavers, rollers, and scrapers. As discussed in **Section 5.11: Noise**, the noise level increases from truck trips would be below the significance threshold of 5 dBA increase above ambient. Construction noise would be less than significant for both this alternative and the proposed Project.

Similar to the Project, implementation of applicable project design and Mitigation Measures would require sound attenuation measures be incorporated into the design of stationary noise sources to minimize noise levels which would reduce potentially significant noise impacts to a less than significant level. With mitigation, neither this alternative nor the proposed Project would result in significant impacts to noise.

Population and Housing

Under Alternative 6, the Project Site would include a total of 1,500 residential units, and a Community Clubhouse with recreation facilities on 26 acres. Accordingly, the Alternative would contain the same number of age restricted residential units and 26-acre Community Clubhouse as the Project. Alternative 6 would result in the same 2,700 residents as the Project.²⁹

Similar to the Project, this Alternative would be consistent with City and SCAG population growth projections and policies.

Public Services

Fire Protection and Emergency Medical Services

Both Alternative 6 and the Project would increase demand on RCFD for fire protection and emergency services due to the development of residential and open space/recreation uses on the Project Site. Construction of Alternative 6 would not obstruct emergency access to the site or surrounding areas nor would operational activities impair any response times since the site is located within an area currently serviced by the RCFD. Under this Alternative, all development would comply with the most current adopted fire and building codes and standards and all applicable development impact fees would be paid to the appropriate jurisdiction. Neither this alternative nor the proposed Project would result in significant impacts to fire protection and emergency medical services.

Law Enforcement Services

Alternative 6, like the Project, would increase demand on the Police Department for law enforcement services due to the development of residential uses on the site. The resultant increase in service population under this Alternative would be greater than when compared with the Project. Like the Project, this Alternative would also incorporate project designs that would enhance security and access throughout the site to reduce needed service from the Police Department. Mitigation Measures similar to the Project would require payment of development impact fees to the appropriate jurisdiction to reduce impacts to less than significant. Neither this alternative nor the proposed Project would result in significant impacts to law enforcement services.

Library Services

Alternative 6, like the Project, would increase demand on the Indio Public Library for library services. The Indio Public Library has indicated that it currently has sufficient capacity to accommodate the growing demands of the City, including the Project. However, similar to the Project, this Alternative would require payment of applicable development impact fees to the appropriate jurisdiction. Neither this alternative nor the proposed Project would result in significant impacts to library services.

²⁹ 1.8 persons per household × 1,500 units = 2,700 residents.

Recreation

With Alternative 6 the proposed uses would not change and, for this reason, Alternative 6 would result in similar demand for parks and recreational facilities due to the increase in residents and visitors on the Project Site when compared to the Project. Alternative 6 would include the same recreation and open space components as the Project, such as the Community Clubhouse. Like the Project, implementation of Alternative 6 would provide recreation and open spaces throughout the Project Site available for residents and those visiting the Project Site. Applicable mitigation would be implemented when compared to the Project, which includes payment of parkland fees to minimize recreational impacts. Additionally, these recreational facilities would be constructed concurrently with development of the Alternative and would contribute to overall construction impacts. Overall, Alternative 6 would result in less than significant impacts, similar to those of the Project. Neither this alternative nor the proposed Project would result in significant impacts to recreation.

Transportation

Alternative 6 would include a roundabout intersection at the main entrance of the Project on Avenue 40 across from Camino San Gregorio instead of the proposed standard signalized intersection Avenue 40. The roundabout would be designed with deflection angles at each of the entry approaches that require vehicles to slow down prior to entry. This would help reduce vehicle speeds at the proposed pedestrian crossings across each leg of the roundabout. The roundabout would also remove left-turns and the conflicts associated with yielding to two-directions of traffic. Existing traffic at the driveway at Camino San Gregorio would experience reduced delay and added safety benefits. These two factors would reduce the severity of collisions should they occur.

The conceptual roundabout design would have sufficient capacity for vehicle queuing and no vehicles spillback into the adjacent intersection on Avenue 40 at Madison Street.

A primary safety consideration at intersections is the number of conflict points, defined as locations at an intersection where vehicle, bicycle, golf cart, or pedestrian paths merge, diverge, or cross. Intersection configurations with fewer conflict points can reduce the potential for head-on, broadside, and vehicle/pedestrian collisions. Assuming that pedestrians may cross at either of the four legs of the intersection:

- A standard intersection controlled by stop signs on the side streets or a traffic signal would have 32 vehicle conflict points and 24 pedestrian conflict points.
- The roundabout has 8 vehicle/bicycle/golf cart conflict points and 8 pedestrian conflict points.

The number of bicycle and golf cart conflict points would be similar to either the vehicle or pedestrian conflict points depending on the facility they choose to travel on. The roundabout interchange has the least number of conflict points due to the removal of left turns. For this reason, it would be the safest due to the reduced vehicle speeds that result from the roundabout.

Although the maximum vehicle queues are exceeded at various turn pockets as shown in **Table 6.0-13** at Jefferson Street and Avenue 40 (Intersection 4) and Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5), along Avenue 40 there is a two-way-left turn lane that provides adequate queue storage. Additionally, maximum vehicle queues at both right-turn and left-turn pockets would not spill into adjacent intersections and can be contained within the through movement storage.

TABLE 6.0-13 INTERSECTION CONTROL EVALUATION – VEHICLE QUEUES									
Intersection	Movement ¹	Storage	Side-Street Stop		Signal		Roundabout		
		(feet)	AM	PM	AM	PM	AM	PM	
Near-Term (2030) with Project									
4	Jefferson Street and Avenue 40	WB L	150 ²	300	250	250	275	250	275
		WB T	4,500	275	175	225	175	225	175
		WB R	175	250	175	300	150	225	125
5	Avenue 40 and Camino San Gregorio/Project Driveway	NB L/T/R	100	50	50	75	75	25	50
		SB L/T	100	50	50	100	75	75	50
		SB R	100	75	75	75	75	0	0
		EB L	100 ²	75	75	100	450	-	-
		EB T/R	4,500	-	-	250	450	-	-
		EB L/T/R	4,500	-	-	-	-	200	275
		WB L	100 ²	50	50	125	125	-	-
		WB T/R	500	-	-	475	300	-	-
		WB L/T	500	-	-	-	-	450	250
6	Madison Street and Avenue 40	EB L	175 ²	50	100	50	75	100	125
		EB T	500	175	325	175	275	175	325

Source: Fehr & Peers. Table 19, 2022.

Notes:

1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left-Turn; T = Through; R = Right-Turn.
2. There is a two-way-left turn lane that provides adequate queue storage at this location.
3. Movements that exceed the available queue storage are noted in bold.

The main Project driveway, at the intersection of Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5) and the intersection of Jefferson Street and Avenue 40 (Intersection 4) are roughly 4,500 feet apart. The intersection of Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5) and the intersection of Madison Street and Avenue 40 (Intersection 6) are roughly 500 feet apart. Vehicle queues from the intersection of Avenue 40 and Camino San Gregorio/Project Driveway (Intersection 5), under operational conditions would not spill into either of the adjacent intersections for either of the three intersection control alternatives.

The standard intersection would not increase traffic safety hazards. Alternative 6 would minimize hazards in comparison to a standard intersection as this location. Neither the standard intersection or the roundabout intersection would result in significant traffic safety impacts.

Utilities and Service Systems

Water Service and Supply

As the proposed land uses would not change, water demand associated with this Alternative would be similar to the proposed Project. The aquifer and other sources of supply are adequate for a single dry year and also multiple dry years for a 20-year period. Like the Project, this Alternative would require additional water infrastructure to serve the site. The water demand associated with this Alternative would be similar to the Project's water demand of 1,220.53 afy. Impacts associated with the Project would be less than significant with incorporation of applicable project designs. Neither this alternative nor the proposed Project would result in significant impacts to water service and supply.

Wastewater Collection and Treatment

As the proposed land uses would not change, this Alternative would generate approximately 1.09 million gallons per day (MGD) of wastewater, similar to the Project. Wastewater generated by this Alternative would be treated at the water reclamation plant (WRP) No. 7. Accordingly, available treatment capacity would be provided, and impacts would be less than significant under this Alternative with incorporation of applicable project design. Neither this alternative nor the proposed Project would result in significant impacts to wastewater collection and treatment.

Dry Utilities (Electricity, Natural Gas, and Telecommunications)

The proposed land uses would not change with this Alternative. As with the Project, submittal, review, and approval of plans through the City and relevant utility providers would ensure future utility demands would be manageable. Any further need for infrastructure upgrades associated with Alternative 6 would be accomplished through the required design review and approval of electricity, natural gas, and telecommunication plans for Alternative 6 through the City and the appropriate regulatory agencies and utility providers. Impacts under this Alternative related to electricity, natural gas, and telecommunications infrastructure would be similar to the Project and impacts would remain less than significant. Neither this alternative nor the proposed Project would result in significant impacts to dry utilities.

Solid Waste

As the proposed land uses would not change, Alternative 6 would generate the same amount of solid waste as the proposed Project. There is adequate capacity and expansion potential within the regional landfill system to accommodate the solid waste expected to be generated by this Alternative or the Project. Closure dates of landfills for the existing landfills are estimates and subject to change depending on the actual tonnage that is received prior to their estimated closing date. While this Alternative and

the Project would increase demand for waste disposal services, incorporation of similar project design would reduce impacts related to solid waste for both to less than significant levels. Neither this alternative nor the proposed Project would result in significant impacts to solid waste.

Summary of Comparative Impacts

Impacts related to Alternative 6 would be similar to agriculture, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emission, hydrology and water quality, land use and planning, noise, fire services, law enforcement, library facilities, and dry utilities. The roundabout would have sufficient capacity to accommodate projected traffic volumes at the intersection of Avenue 40 with the primary entrance to the Project and Camino San Gregorio. While Alternative 6 would minimize traffic safety hazards in comparison to a standard intersection as this location, neither a standard intersection or a roundabout intersection would result in any significant traffic safety hazard impacts.

Relationship to Project Objectives

Alternative 6 considers a roundabout design for the intersection on Avenue 40 at the main entrance to the Project instead of a standard signalized intersection. No other change to the Proposed Project would occur with this alternative. The following Project objectives would be met with this Alternative:

- Develop a thoughtfully planned and integrated master-planned residential community that aligns with and compliments the adjacent Sun City Shadow Hills community;
- Connect the new Desert Retreat community with the existing surrounding community by providing for multiple points of access for different travel modes, including pedestrians, bicycles, golf carts and motor vehicles.
- Provide a comprehensive land use plan that establishes development standards, land use regulations, and programs to guide the orderly transition/development of the property;
- Accommodate phasing that provides for a multi-year project buildout in an orderly and efficient manner;
- Establish design guidelines, development regulations, use standards and procedures that facilitate cohesive and attractive landscape and architectural treatments;
- Provide a safe and efficient circulation system;
- Provide water, sewer, and drainage systems to adequately service the project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As previously discussed, analysis of a reasonable range of Alternatives is required by CEQA. The purpose of the Alternatives analysis is to explain potentially feasible ways to avoid or minimize the significant effects identified for the Project. Furthermore, State CEQA Guidelines, Section 15126.6(e)(2) requires an EIR to identify an environmentally superior Alternative among those evaluated in an EIR.

A summary comparison of impacts associated with the Project Alternatives is provided in **Table 6.0-14: Comparison of Alternatives to Project**. As indicated in **Table 6.0-14**, the first line compares the Alternative's incremental increase, decrease, or results in similar impacts, to the Project's identified

impact. The second line below that comparison then compares the level of significance of the Alternative's impact to the level of significance of the Project's impact. Of the Alternatives considered in this Draft EIR section, the No Project/No Development Alternative is environmentally superior to the other Alternatives, because this Alternative would avoid the significant and unavoidable impacts identified for the Project.

According to the State CEQA Guidelines, if the No Project/No Development Alternative is identified as the environmentally superior Alternative, the Draft EIR shall also identify an environmentally superior Alternative among the other Alternatives. Of the other Alternatives considered, Alternative 5, the Reduced Intensity Alternative, would be considered environmentally superior, because it would result in the greatest incremental reduction of the overall level of impacts when compared to the Project. Alternative 5 would reduce, but not avoid or reduce to a level of less than significant, any of the potentially significant impacts of the Project.

As the Reduced Density Alternative would develop all of the components proposed by the Project, this Alternative would be consistent with the objective to establish a high-quality, master-planned age-restricted community. However, Alternative 5 would not meet the objective to reflect consistency with the goals and policies of the City's current General Plan for the Project Site, nor would it comply with applicable state housing laws. Lastly, Alternative 5 is unlikely to be financially feasible as its reduced densities would generate substantially less revenue, which may be insufficient to meet the cost of the development.

Overall, the Reduced Intensity Alternative would not meet the Project objectives to the same extent as the Project and because the proposed Project will not result in any significant impacts with mitigation, this, this alternative would not avoid or substantially lessen any significant impacts that would result from the proposed Project.

**TABLE 6.0-14
COMPARISON OF ALTERNATIVES TO PROJECT**

Environmental Issue Area	Project	<u>Alternative 1</u> No Project/No Development	<u>Alternative 2</u> Existing General Plan	<u>Alternative 3</u> Existing Zoning	<u>Alternative 4</u> Residential with Golf Course	<u>Alternative 5</u> Reduced Density	<u>Alternative 6</u> Roundabout Entry Intersection
Agricultural and Forestry Resources	Less than Significant	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Air Quality	Less than Significant with Mitigation	Reduced (No impact)	Greater (Less than Significant with Mitigation)	Greater (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)	Reduced (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Biological Resources	Less than Significant with Mitigation	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Cultural Resources	Less than Significant with Mitigation	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Energy	Less than Significant	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)
Geology and Soils	Less than Significant with Mitigation	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Greenhouse Gas Emissions	Less than Significant with Mitigation	Reduced (No impact)	Greater (Less than Significant with Mitigation)	Greater (Less than Significant with Mitigation)	Greater (Less than Significant with Mitigation)	Reduced (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Hydrology and Water Quality	Less than Significant	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Land Use and Planning	Less than Significant	Greater (Less than Significant)	Similar (Less than Significant)	Greater (Significant and Unavoidable)	Similar (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)

**TABLE 6.0-14
COMPARISON OF ALTERNATIVES TO PROJECT**

Environmental Issue Area	Project	<u>Alternative 1</u> No Project/No Development	<u>Alternative 2</u> Existing General Plan	<u>Alternative 3</u> Existing Zoning	<u>Alternative 4</u> Residential with Golf Course	<u>Alternative 5</u> Reduced Density	<u>Alternative 6</u> Roundabout Entry Intersection
Noise	Less than Significant with Mitigation	Reduced (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Population and Housing	Less than Significant	Reduced (No impact)	Greater (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)
Fire Protection and Emergency Medical Services	Less than Significant	Reduced (No impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)
Law Enforcement Services	Less than Significant	Reduced (No impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)
School Services	N/A	Reduced (No impact)	Reduced (Less than Significant)	Greater (Less than Significant)	N/A	N/A	N/A
Library Services	Less than Significant	Reduced (No impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Recreation	Less than Significant	Greater (No impact)	Similar (Less than Significant)	Similar (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Transportation	Less than Significant	Reduced (No impact)	Greater (Less than Significant)	Greater (Less than Significant)	Greater (Less than Significant)	Reduced (Less than Significant)	Reduced (Less than Significant)
Water Service and Supply	Less than Significant	Reduced (No impact)	Greater (Less than Significant)	Greater (Less than Significant)	Greater (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)
Wastewater Collection and Treatment	Less than Significant	Reduced (No impact)	Reduced (Less than Significant)	Greater (Less than Significant)	Greater (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)

**TABLE 6.0-14
COMPARISON OF ALTERNATIVES TO PROJECT**

Environmental Issue Area	Project	<u>Alternative 1</u> No Project/No Development	<u>Alternative 2</u> Existing General Plan	<u>Alternative 3</u> Existing Zoning	<u>Alternative 4</u> Residential with Golf Course	<u>Alternative 5</u> Reduced Density	<u>Alternative 6</u> Roundabout Entry Intersection
Dry Utilities (Electricity, Natural Gas, and Telecommunications)	Less than Significant	Reduced (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Solid Waste	Less than Significant	Reduced (No impact)	Greater (Less than Significant)	Greater (Less than Significant)	Similar (Less than Significant)	Reduced (Less than Significant)	Similar (Less than Significant)

7.0 GROWTH-INDUCING IMPACTS

INTRODUCTION

Section 15126.2(d) of the California Environmental Quality Act (CEQA) Guidelines, as amended, requires an EIR to include a discussion of if and how a project could directly or indirectly foster economic growth, population growth, or the construction of additional housing in the surrounding environment and any resulting impacts on the environment. CEQA requires the discussion to address projects that would remove obstacles to population growth and consider any characteristics of a project which may encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively, and that growth in an area should not be considered beneficial, detrimental, or of little significance.

In general terms, a project may foster spatial, economic, or population growth in a geographic area if it:¹

- Removes an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area).
- Creates economic expansion or growth (e.g., construction of additional housing, changes in revenue base, employment expansion, etc.).
- Involves a precedent-setting action (e.g., an innovation, a change in zoning or general plan designation).
- Develops or encroaches into an isolated or adjacent undeveloped or open space area.

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for a six-county region (Ventura, Los Angeles, Orange, Riverside, San Bernardino, and Imperial Counties) in Southern California and is charged by the federal government to research and prepare plans for transportation, growth management, hazardous waste management, and air quality. One of the many responsibilities mandated to SCAG by the State is the development of demographic projections, which are outlined in **Section 5.11: Population and Housing** of this Draft EIR.

GROWTH-INDUCING IMPACT ANALYSIS

Remove an Impediment of Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of

¹ California Public Resources Code, Title 14, Division 6, "Chapter 3." *California Environmental Quality Act Guidelines*, Section 15126(d).

essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

The Project is located in an undeveloped area that contains established land uses and supporting infrastructure. Construction of the Project would require the modification of off-site infrastructure and the development of on-site infrastructure in order to support the increased land use intensity associated with the Project.

Growth projections contained in the RTP/SCS are based on a compilation of county and local projections. RTP forecasts are then used in the formulation of regional plans dealing with regional air quality, housing, transportation/circulation, and other infrastructure issues. SCAG does not provide a specific methodology for establishing the consistency of a proposed project with its regional growth forecasts. However, the RTP contains policies that support the use of these forecasts in the preparation and review of local and regional plans and projects.

The City of Indio has an estimated 2022 population of 89,137.² With full development of the uses allowed by the General Plan, the City anticipates a maximum population of approximately 129,300 residents by 2045.³ The Project would add up to 1,500 residential units and 2,700 new residents to the City of Indio. The population increase associated with the Project would account for approximately 2.1 percent of the population growth anticipated in the City's SCAG projections by 2045 and approximately 0.08 percent of the anticipated population across the SCAG region by 2045. Accordingly, the anticipated population increase from the Project is accommodated in City and regional growth forecasts (see discussion in **Section 5.11: Population and Housing**). As discussed in **Section 5.11**, the City's RHNA identified 7,812 additional housing units must be planned for development within the City by 2029. The housing increase associated with the Project would account for approximately 19 percent of the RHNA planned housing units in the City⁴ and approximately 3.4 percent of the anticipated increase in number of households projected by SCAG for the City by 2045.⁵ Moreover, as the Project would not include commercial land use, there would be only limited permanent employment opportunities generated by the proposed Project (Recreation center staffing, landscape maintenance, etc.). The Project's population, housing, and employment opportunity projections would be consistent with SCAG and City projections as analyzed in the General Plan Update EIR.

The City of Indio General Plan projects residential growth within the Project Site. The General Plan is a master plan that provides the framework by which public officials will be guided in making decisions

2 California Department of Finance. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022." <https://dof.ca.gov/forecasting/Demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>. Accessed November 2022.

3 Southern California Association of Governments (SCAG). *Current Context Demographics and Growth Forecast Technical Report*. Adopted September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579. Accessed November 2022.

4 1,500 housing units (Project Site) / 7,812 housing units (RHNA) = 19%.

5 1,500 housing units (Project Site) / 44,000 housing units (SCAG City of Indio) = 3.4%.

relative to development within the Project Site. The implementation of land use policies will incrementally increase demands for public services, utilities, and infrastructure, and the need for medical, education, and recreation facilities.

An established transportation network exists in the surrounding area that offers regional and local access to the Project Site. Regional access to the Project Site would be provided by the I-10 Freeway. Local access to the Project Site would be provided by Gerald Ford Drive, Monterey Avenue, Frank Sinatra Drive, and Bob Hope Drive. Roadway improvements would be made as development occurs for each individual project, including the payment of Transportation Uniform Mitigation Fee (TUMF) fees for identified roadway infrastructure projects in the western Coachella Valley.

The Project Site is located within the northern most portion of the City. North of Avenue 38, east of Madison Street and south of Avenue 40, consist of single-family residential neighborhoods with vacant land further north and east of Eastside Drive. Additionally, north of Lindy Lane on the east side of the Project Site is the Coachella Valley Water District (CVWD) Wastewater Reclamation Plant No. 7 (WRP-7). Also near the Project Site is a small neighborhood of single-family homes adjacent to Avenue 38 and Jefferson Street to the northwest and a number of vacant parcels adjacent to Jefferson Street and Avenue 40 to the southeast. West of Jefferson Street, existing land uses can be described as an area in transition from primarily agricultural to primarily developed. This area west of Jefferson Street is home to Shadow Hills High School, a church, a number of small agricultural operations, and a scattering of single-family homes, with open spaces interspersed throughout.

The water, wastewater, electrical, and natural gas infrastructure required to support the Project would be available to the Project Site from connections in the surrounding streets and the proposed electrical substation. Potable water would be provided to the Project Site from the Coachella Valley Water District (CVWD). The Project is required to design and install an 18-inch pipeline on 38th Avenue from Primrose Lane easterly along the Project frontage to the Project entrance at the intersection of 38th Avenue and Talavera Boulevard. The CVWD would also require the Project to contribute its fair share to the construction of a new 7 MG reservoir. The Project would use recycled water from CVWD Reclamation Plant No. 7, located immediately north of the Project Site on the corner of Avenue 38 and Madison Street, for the irrigation of parkways and open space. As discussed in **Section 5.8: Hydrology and Water Quality** of this Draft EIR, the Project's drainage design would collect, convey, and retain what occurs within the Project Site boundaries, and retention facilities would be constructed and sized to retain the worst-case flood volume from a 100-year storm event.

Water and wastewater infrastructure upgrades are intended to meet Project-related demand. The new water and wastewater lines have been designed to provide for the Project and would not generate substantial capacity that would induce growth within the area. The Project Site would be provided with sanitary sewer service by CVWD. There are two proposed sewer improvement options for the Project Site. Both options would consist of routing a network of public sewer lines within the proposed development to either the southeast corner of the Project Site or create an extension of existing pipeline

7.0 Growth-Inducing Impacts

to the west of the Project Site down Jefferson Street to Varner Road. Both options would connect to a lift station that would then pump the flow north to the WRP-7. The proposed sewer enhancements would provide additional capacity for the proposed Project as well as future growth within the area. However, this growth is consistent with the goals of the City's General Plan and the plans for CVWD's service area. As such, the growth associated with the proposed Project is planned and would not significantly impact the resources within the City.

Natural gas transmission infrastructure presently exists within roadways surrounding the Project Site to the north, east, and south; however, infrastructure does not presently exist on the Project Site. During development of the Project, a natural gas line would be constructed on site to connect existing Southern California Gas (SoCal Gas) Company gas mains in surrounding roadways. Electrical infrastructure in the City is maintained by the Imperial Irrigation District (IID). The IID planning area used approximately 3,516 GWh of electricity in 2021, of which 1,906 GWh were derived from residential uses.⁶ The nearest transmission line to the Project Site includes an east/west 92 kilovolt (kV) line along 40th Avenue, directly south of the Project Site.⁷ No electricity is currently used on the vacant Project Site. In its will-serve letter, IID has indicated that the Project will be required to construct a new substation to connect to the existing transmission line and serve the Project. While the substation is expected to have some excess capacity, that capacity will add needed resiliency to IID's existing system and may also serve some other planned development in the Project vicinity that is consistent with the City's General Plan. However, the substation would not create excess capacity beyond what is already needed to facilitate the growth in the area set forth in the City's General Plan. In fact, several additional substations will be needed to facilitate that planned growth within the City's General Plan. Spectrum and Verizon provide telecommunication services to the City. Natural gas, electricity, and telecommunication infrastructure upgrades are intended to meet Project-related demand. The Project would require submittal to utility providers for review and approval of connection plans. The new natural gas, electrical, and telecommunication lines have been designed to provide for the Project and would not generate substantial capacity that would induce growth within the area. No growth-inducing impacts due to the connection of natural gas, electrical, or telecommunication service lines would occur with the development of the Project.

In summary, the design and construction of roadways, water, sewer, electrical, natural gas, and telecommunication infrastructure needed to accommodate the Project would not induce unplanned growth within undeveloped areas surrounding the Project Site.

6 Imperial Irrigation District. *Imperial Irrigation District 2021 Annual Report*. <https://www.flipsnack.com/58E7CB99E8C/2021-iid-annual-report.html>. Accessed November 2022.

7 California Energy Commission. "Electric Infrastructure Map." <https://cecgis-caenergy.opendata.arcgis.com/app/ad8323410d9b47c1b1a9f751d62fe495>. Accessed November 2022.

Economic Growth

A project would indirectly induce growth if it would increase the capacity of infrastructure in an area in which the public service currently met demand or would extend infrastructure to an area that was not previously served. Examples would be increasing the capacity of a sewer treatment plant or a roadway beyond the capacity needed to meet existing demand or extending a water or sewer line to a project where other properties could also use that line extension.

As discussed in **Section 5.12: Public Services**, the City of Indio Police Department (Police Department) provides law enforcement services to the Project Site out of their headquarters located at 46800 Jackson Street. Implementation of the proposed Project is projected to require an increased demand for police protection services, such as an increased number of sworn officers servicing the Project Site. However, response times and officer-to-population service ratios would be maintained to City standards upon implementation of the Project and payment of applicable development impact fees, so additional police protection facilities would not be required.

The Riverside County Fire Department (RCFD) would provide fire protection services to the Project Site. While the increased development and the introduction of new uses and residents, such as those associated with the Project, would result in additional demand for services provided by the RCFD, compliance with existing regulatory requirements during implementation of the Project would ensure that the City's infrastructure, including access, traffic circulation, water, and hydrant systems are adequate for both current RCFD needs as well as the needs of the Project. Thus, the Project would be required to install fire hydrants and provide adequate emergency access, including ingress and egress points, for emergency services in accordance with the City Fire Code and pay any applicable fees.

The Indio Public Library relies on its budget from private fund sources and taxed-based revenue from the City (development impact fees). Therefore, the Project would require payment of applicable development impact fees for library services in order to maintain library services in the area. Future library facilities in the City would be subject to review by the County and adherence to federal, State, and local building codes and regulations.

Construction of the Project would not create any employment opportunities for the region. Therefore, the Project would not induce significant growth within the surrounding area.

Precedent-Setting Action

A project would directly induce growth if it would remove barriers to population growth such as a change to a jurisdiction's general plan and Zoning Ordinance that allowed new residential development to occur.

The Project Site is currently surrounded by predominantly urban, developed uses and utilities infrastructure largely exists in place in or adjacent to surrounding roadways. As mentioned previously, new utility connections enabled by the Project would serve on-site uses. Accordingly, development of the Project Site would not eliminate potential constraints for future development or encourage and

facilitate other activities that could significantly affect the environment. The proposed Specific Plan would implement the Indio General Plan by bringing detailed policies and regulations together into a focused development plan for the proposed Project, serving as a link between the Indio General Plan and subsequent development proposed within the Specific Plan area.

As discussed in **Section 5.9: Land Use and Planning**, the Project Site is located within an area designated for “Neighborhood” development and a sub-area designated for “Suburban Neighborhood” development. The General Plan recommends that neighborhoods include a balanced mix of activity that includes a variety of dwellings, small, shops and workplaces, civic buildings, and parks within a walkable network of streets, such that complete, compact, and connected neighborhoods are created. According to the City’s most recent 2022 zoning update, the Project Site is zone “Suburban Neighborhood-8” (SN-8). The Specific Plan, upon implementation, is consistent with the General Plan and zoning for the entire Project Site, resulting in the entire Site being zoned as a specific plan area.

Based on the maximum permitted residential density of 4-8 dwelling units/acre in the Suburban Neighborhood High zone, the existing zoning/land use designation for the Project Site could accommodate up to approximately 2,816 dwelling units⁸ and up to approximately 5,069 potential residents.⁹ As such, the maximum 1,500 units enabled by the Project would represent a decrease of 1,316 units under what is permitted under the current land use designation. As explained in **Section 5.10**, the population increase associated with the Project would account for approximately 2.1 percent of the population growth anticipated in the City’s SCAG projections by 2045 and approximately 0.08 percent of the anticipated population across the SCAG region by 2045. This overall population growth is consistent with City and SCAG projections and can be accommodated by existing and planned future infrastructure. Moreover, the intensity and uses enabled by the Project are considered consistent with the spirit and intent of current General Plan land use/zoning designations for the Project Site.

Finally, no changes to any of the City’s building safety standards (i.e., building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement the Project. Project Design Features and Mitigation Measures have been identified in **Sections 5.1 to 5.16** to ensure that subsequent subdivision maps and site-specific development projects comply with all applicable plans, policies, and ordinances. Pressures to develop vacant, interspersed properties surrounding the Project Site would be dependent upon regional economic conditions and market demands for housing, commercial office, and industrial land uses that are not directly or indirectly influence by the Project. Therefore, approval of the Project would not involve a precedent setting action that would be applied to other properties and thereby encourage or facilitate growth that would not otherwise occur. Accordingly, the Project would not be considered growth inducing.

8 8 du/acre * 352 acres (proposed Project land use dedicated to residential use) = 2,816 du.

9 Based on 1.8 persons per household estimate * 2,816 du = 5,068.8 residents.

Develop or encroach into undeveloped or open space areas

As discussed above, the Project would involve the development of an undeveloped site in a relatively urbanized area of the City. The Project Site is surrounded by similar residential uses in an area planned and zoned for these uses. The City's General Plan designates land area into one of three categories based on the level of change desired over the planning horizon: preserve, minor change; enhance, moderate change; and transformation, major change. The Project Site is located in an area designated for enhance, moderate change.¹⁰ Areas designated for enhance, moderate change are those where change is desired over the time horizon of the General Plan and where change will happen gradually over the entire horizon of the Plan and beyond. These are areas expected to see moderate development over time and the area may, after 15 to 20 years, look very different than it does at present. The Project Site is surrounded by Enhance areas to the west and Preserve areas to the north, east, and south, opposite the adjacent arterial street in each direction. Although the Project would be developed within an area that is currently undeveloped, the proposed Project Site was identified within the City's General Plan as an area designated for residential development in the Suburban Neighborhood land use designation.

Furthermore, as discussed in **Section 5.3: Biological Resources**, the Project Site is not located within any regional wildlife corridors/linkages or CVMSHCP conservation areas. The Project Site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping-stone habitat (natural areas) within or connecting the Project Site to the CVMSHCP conservation areas. Therefore, the Project would not involve the development within an area designated as open space.

Conclusion

The Project would not result in the removal of an impediment to growth or involve the approval of a precedent setting actions that could result in additional growth in the area the Project site is located in. In addition, the proposed Project would neither cause growth (i.e., new employment) nor accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project buildout as the proposed Project would be consistent with the adopted employment, housing, and population policies of SCAG's 2020-2045 RTP/SCS and the City's *General Plan*. The Project would develop an existing undeveloped property with uses consistent with the City's plans and would not involve the development of open space areas. For these reasons, the potential for the Project to induce additional growth is considered low and the potential for additional environmental impacts to result from additional growth that could be induced by the Project is considered less than significant.

10 City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. "Chapter 3." Figure 3-3: Degree of Change." <https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed December 2022.

8.0 OTHER ENVIRONMENTAL IMPACTS

This section of the Draft Environmental Impact Report (Draft EIR) provides a brief discussion of the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the Draft EIR. In compliance with the provisions of the California Environmental Quality Act (CEQA) Guidelines,¹ this section also discusses the significant irreversible environmental changes that would be caused by the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”), including the use of nonrenewable resources, and primary and secondary impacts which generally commit future generations to similar uses. Please see **Section 9.0: Terms, Definitions, and Acronyms** for a glossary of terms, definitions, and acronyms used in this Draft EIR.

¹ California Code of Regulations. Title 14. Section 15000 et seq. *CEQA Guidelines*. Section 15127 and 15128.

8.1 EFFECTS NOT FOUND TO BE SIGNIFICANT

INTRODUCTION

The City of Indio (City) acting as the Lead Agency for the planning and environmental review of the proposed North Indio Specific Plan Project (“Desert Retreat Specific Plan” or “Project”), is preparing this Draft Environmental Impact Report (Draft EIR) in compliance with the California Environmental Quality Act (CEQA), including the *CEQA Guidelines*. Section 15128 of the *CEQA Guidelines* requires a brief description of any possible significant effects that were determined not to be significant and were not analyzed in detail within the environmental analysis.

The Initial Study prepared for the Project (see **Appendix A**) utilized the latest available criteria thresholds outlined in the *2022 CEQA Guidelines* Appendix G Checklist. These thresholds reflect the City’s efforts to align with current directives and guidance provided by the Governor’s Office of Planning and Research. The following discussion presents the analysis of the effects related to aesthetics, agriculture and forestry, biological resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, utilities and service systems, and wildfire determined to have no potential to impact the environment, per the CEQA Guidelines. Any items not addressed in this section are addressed in **Section 5.0: Environmental Impact Analysis** of this Draft EIR.

AESTHETICS

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

Threshold a): Have a substantial adverse effect on a scenic vista?

The approximately 377-acre Project Site consists of vacant, undeveloped land that has been subject to a variety of previous disturbance, including historic agricultural activities and recent disking. There are no identified scenic vistas in the City.¹ Views of the San Jacinto and Santa Rosa Mountains to the west and south and the Little San Bernardino Mountains to the north are available from the site and surrounding area.² The proposed residential development would be similar in scale and character to the existing Sun City Shadow Hills Community located immediately east and south of the Project Site and would not obstruct available public views available from streets in the area to any greater degree than this existing development. For these reasons, impacts would be less than significant.

1 City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. Pages 4.1-6 to 4.1-7. <https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed November 2022.

2 City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. Page 4.1-2. <https://www.indio.org/home/showpublisheddocument/3321/638053330127130000>. Accessed November 2022.

8.1 Effects Not Found to be Significant

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

The Project Site is located approximately 4.5 miles north of California State Route (SR) 111,³ which is an eligible State scenic highway without official designation.⁴ The nearest officially designated State scenic highway is US Route 62, approximately 25 miles to the northwest. The Project Site is flat and vacant with minimal vegetation as a result of the historic agricultural activities and recent disking. There are no trees, rock outcroppings, historic buildings, or other scenic resources on the Project Site. Impacts would be less than significant.

Threshold c): In nonurbanized 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?

Surrounding land uses include single-family residential to the north; single-family residential and a golf course to the east and south; and Shadow Hills High School and single-family residential and vacant land to the west.

The Project Site is flat and vacant with minimal vegetation. The Specific Plan would permit development of single-family residential homes with recreational and community uses in the center of the Project Site. The proposed Project would change the existing visual character of the site by allowing the development of a residential community. The proposed residential development would be similar in scale and character to the existing Sun City Shadow Hills Community located immediately east and south of the Project Site. While the visual character of the Project Site would change with implementation of the proposed Project, this change would be consistent with existing surroundings. The Project would not substantially degrade the existing visual quality of the site or the surrounding area, and the impacts of the Project would be less than significant.

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

Existing sources of light in the area include light from the residential uses east of the Project Site across Madison Street, south across 40th Avenue, and north across 38th Avenue. Another source of nighttime light in the area includes the high school to the west and vehicle traffic on the streets surrounding the site.

Future development of the Project Site will introduce new sources of light typical of residential neighborhoods in the area. Although new sources of light would occur throughout the Project Site with new development, they would be consistent with existing surroundings, and would not adversely affect day or nighttime views. The proposed Project would adhere to applicable City policies and regulations,

³ Google Maps 2022. maps.google.com. Accessed May 2022.

⁴ California Department of Transportation. "California Scenic Highway Mapping System." Accessed May 2022. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

including requiring shielding of lighting fixtures to prevent spillover onto surrounding properties. The Project would not create a new source of substantial light or glare and the impacts of the Project would be less than significant.

AGRICULTURE AND FORESTRY RESOURCES

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

Would the project:

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

The Project Site General Plan and Zoning designation is Suburban Neighborhood (SN; eight dwelling units per acre maximum), Residential Low (RL), and Village Core.⁵ The Project Site is not subject to a Williamson Act contract; it is designated as Non-Enrolled by the California Department of Conservation, Conservation Program Support.⁶ The land around the site is developed, and none of it is zoned for agriculture or subject to a Williamson Act Contract. No impacts would occur.

Threshold c): Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

As defined by the Public Resources Code Section 12220(g),⁷ forestland is land that can support 10 percent native tree cover of any species under natural conditions and that allows for management of one or more forest resources. Given that there is minimal vegetative cover on the Project Site and the site is not zoned as forestland, the Project would not affect any forestlands as defined by the Public Resources Code.

A Timberland Production Zone is defined by the Government Code Section 51104(g)⁸ as an area that is zoned for the sole purpose of growing and harvesting timber. Because the Project Site does not contain

5 City of Indio. *City of Indio General Plan 2040*. "Land Use and Urban Design." Adopted September 18, 2019. <https://www.indio.org/home/showpublisheddocument/3327/638053914862030000>. Accessed November 2022.

6 California Department of Conservation, Division of Land Resource Protection. Conservation Program Support. "Riverside County Williamson Act FY 2015/2016." Sheet 2 of 3 (2016). ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Riverside_w_15_16_WA.pdf. Accessed November 2022.

7 Public Resources Code (PRC), sec. 12220(g).

8 PRC, sec. 51104(g).

8.1 Effects Not Found to be Significant

any timber resources, nor is it zoned as timberland or timberland zoned Timberland Production, the Project would not conflict with timberland or Timberland Production areas. No impacts would occur.

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

As previously discussed, the Project Site is not defined as having forestland as defined in Public Resources Code Section 12220(g). Additionally, there is no forestland located in or near the Project Site. The Project would not result in the loss of forestland or result in the conversion of forestland to nonforest uses. No impacts would occur.

BIOLOGICAL RESOURCES

Would the project:

Threshold b): Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

The Coachella Canal is located outside of the Project boundaries, adjacent to the southeast corner of the Project Site. This is a manmade channel that connects the City's drainage areas and does not include any riparian or other sensitive natural community. According to the field surveys conducted, the Project Site does not support any discernible drainage courses, inundated areas, wetland vegetation, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW, nor does it contain any other sensitive natural community identified in any local or regional plans, policies, or regulations.⁹

Threshold c): Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Project Site does not contain any federally protected wetlands or water features as defined by Section 404 of the Clean Water Act.¹⁰ No impacts would occur.

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

The City of Indio is a participant in the CVMSHCP and is a co-permittee for the permits issued in association with this plan. The Project Site is not located in any Conservation Area identified in the CVMSHCP, and the Project will pay the City's Local Development Mitigation Fee (LDMF) collected to implement the CVMSHCP. No other local policies or ordinances protecting biological resources apply to the site. The Project is consistent with the CVMSHCP, and, for this reason, no impacts will occur.

⁹ ELMT Consulting, Inc. *Pulte North Indio Project Habitat Assessment and Coachella Valley Multiple Species Habitat Conservation Plan Consistency Analysis*. August 2022. Appendix E.

¹⁰ City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 4.4-10.

Threshold f): Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

As discussed above, the City of Indio is a participant in the CVMSHCP and is a co-permittee for the permits issued in association with this plan. This plan was prepared for the Coachella Valley and surrounding mountains to address current and potential future State and federal Endangered Species Act issues in the plan area. The goal of the CVMSHCP is to continue to protect natural resources within the plan area by managing such resources and land uses that impact them, and to provide consistency and streamline permitting requirements with respect to protected species in the plan area. The Project Site is not located in any conservation area identified in the CVMSHCP, and the Project will pay the City's LDMF collected to implement the CVMSHCP.

GEOLOGY AND SOILS

Would the project:

Threshold d): Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Expansive soils are characterized as fine-grained, such as silts and clays, or soils with variable amounts of expansive clay minerals that can change in volume due to changes in water content. Collapsible soils typically occur in recently deposited soils that tend to be drier and more granular.

The Project Site consists of alluvium soil deposits that do not contain silts and clays.¹¹ Impacts would be less than significant.

Threshold e): Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The Project Site will be connected to the existing sewer system serving the area. Use of septic tanks or alternative wastewater disposal systems are not proposed. No impacts would occur.

HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Threshold a): Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project Site is located in the northwest portion of the City of Indio and is adjacent to existing residential development on the south, north, and east sides and a school to the west. The proposed residential uses will not involve the transport, use, and disposal of hazardous materials. No hazardous materials other than modest amounts of typical cleaning supplies and solvents used for residential

¹¹ City of Indio. *City of Indio General Plan Update EIR (2019)*. Pages 4.6-6.

8.1 Effects Not Found to be Significant

housekeeping would be present at the Project site, and use of these substances would comply with Health and Safety Code Section 25501(o).

The construction of the proposed residential community will only involve the transport, use, and disposal of hazardous materials typically associated with grading and construction of site improvements and homes in accordance with City regulation. As a result, potential impacts are less than significant as neither the public nor the environment would be put at risk by standard residential construction practices as they relate to hazardous materials. Impacts would be less than significant.

Threshold b): Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As discussed above, construction of the proposed residential community will only involve the transport, use, and disposal of hazardous materials typically associated with grading and construction of site improvements and homes, and residential uses do not involve the use and handling of hazardous materials. Given that no hazardous materials would be associated with the proposed residential uses, it is not expected that Project implementation would create a significant hazard to the public or environment. Impacts would be less than significant.

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

Shadow Hills High School is located immediately west of the Project Site across Jefferson Street. The construction of the proposed residential community will only involve the transport, use, and disposal of hazardous materials typically associated with grading and construction of site improvements and homes in accordance with City regulation. The proposed residential uses will not involve the handling of hazardous substances or emit hazardous emissions. As a result, potential impacts are less than significant as the Project would not involve the handling of hazardous substances or emit hazardous emissions within one-quarter mile of an existing or proposed school.

Threshold d): Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Significant impacts would occur if the Project Site were included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Based on database review, the site is not included on any of these hazardous materials site lists.¹² Impacts would be less than significant.

¹² California Department of Toxic Substances Control. "EnviroStor." <https://www.envirostor.dtsc.ca.gov/public/>. Accessed May 2022.

8.1 Effects Not Found to be Significant

Threshold e): For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The closest airport to the Project Site is Bermuda Dunes Airport, a privately owned public use airport, located approximately 2.4 miles to the southwest. The Project Site is located within Bermuda Dunes Airport Land Use Compatibility Plan (ALUCP) Compatibility Zone E (other airport environs).¹³ The only use restriction in Compatibility Zone E is that structures need to be less than 100 feet in height to avoid creating a hazard to flight.¹⁴ The Project will construct single-story residential homes less than 100 feet in height and would not create a hazard to flights or require review by the Airport Land Use Commission.¹⁵ The Project Site is not located within the Bermuda Dunes Airport noise contours.¹⁶ As such, the location of the Project would not result in a safety hazard or excessive noise for residents or employees in the Project area. No impacts would occur.

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

Construction of the Project could require partial closures of portions of Jefferson Street, 40th Avenue, Madison Street, and 38th Avenue for short periods. Any partial closure of these roads would be temporary, would not occur simultaneously, and would be conducted in accordance with a construction management plan and under the supervision of construction personnel. The City has developed emergency operations plan to guide response to emergency situations.¹⁷ Impacts on emergency evacuation south toward Interstate 10 would be less than significant.

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

According to the City of Indio General Plan Update EIR,¹⁸ the Project Site and surrounding locations would not be affected by wildfires. Furthermore, the Project Site and surrounding locations are not in a Fire Hazard Severity Zone.¹⁹ No impacts would occur.

13 City of Indio. *City of Indio General Plan Update EIR (2019)*. Figure 4.8-3.

14 Riverside County Airport Land Use Commission. *Riverside County Airport Land Use Compatibility Plan, Policy Document*, “Chapter 2 Countywide Policies.” Table 2A Basic Compatibility Criteria. <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/04-%20Vol.%201%20County%20wide%20Policies.pdf>. Accessed November 2022.

15 Riverside County Airport Land Use Commission. *Riverside County Airport Land Use Compatibility Plan, Policy Document*, “Chapter 2 Countywide Policies.” Page 2-29. <https://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/04-%20Vol.%201%20County%20wide%20Policies.pdf>. Accessed November 2022.

16 City of Indio. *City of Indio General Plan Update EIR (2019)*. Figure 4.12-2.

17 City of Indio. *City of Indio General Plan Update EIR (2019)*. Pages 4.8-6–4.8-7.

18 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 7-2.

19 California Department of Forestry and Fire Protection. Fire and Resource Assessment Program. “Fire Hazard Severity Zones Maps FHSZ Viewer.” <https://egis.fire.ca.gov/FHSZ/>. Accessed May 2022.

HYDROLOGY AND WATER QUALITY

Would the project:

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

The proposed Project will generate standard urban pollutants that are typical of residential uses. The Project will be required to comply with the requirements of the NPDES General Construction Permit and Municipal Separate Storm Sewer System (MS4) Permit, both as approved by the RWQCB to control urban runoff by preparing and implementing a SWPPP during construction and incorporating effective Best Management Practices (BMPs) water quality control features into the design of the drainage system for the Project Site.

The Project site is not located in a tsunami or seiche zone. The northeast portion of the Project Site is located within a 100-year flood hazard area and the southwest portion of the Project Site is located within a 500-year flood hazard area.²⁰ The proposed Specific Plan will include Grading and Drainage Master Plans that will result in removing the proposed homes from the floodplain.

LAND USE AND PLANNING

Would the project:

Threshold a): Physically divide an established community?

The Project Site is located in the northwest portion of the City surrounded to the north, east, and south by development with vacant parcels located northeast of the Specific Plan Area. Surrounding uses include residential neighborhoods and golf courses. Shadow Hills High School is located directly west of the central portion of the Specific Plan Area and pockets of residential and vacant parcels further west.

The Specific Plan Area is bordered by connector streets and represents a rural development site in the City in this regard. The City's General Plan designates the site for Suburban Neighborhood (SN) uses which would be consistent with the pattern of surrounding land uses. The Desert Retreat Specific Plan is proposed to implement the City's General Plan. Development of the site with the uses identified in the City's General Plan would not physically divide the established pattern of development around the site. Impacts would be less than significant.

²⁰ City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. "Chapter 10. Safety." 10-8.

MINERAL RESOURCES

Would the project:

Threshold a): Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

The Coachella Valley, including the surrounding hills and mountains to the north and south of the Project Site, contain known deposits of mineral resources, such as sands and gravel.²¹ However, these deposits are found within the entire desert floor and surrounding hills and mountains to the north and south of the Project Site and are not specific or unique to the Project Site. The Project Site is located in Mineral Resource Zone 1 (MRZ-1), which indicates that the potential for the site to contain mineral resources of value to the region are low.²² There are currently no mines or extraction sites within the City. Impacts would be less than significant.

Threshold b): Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

As mentioned previously, the City of Indio General Plan indicates that mineral resources exist within the City's Sphere of Influence but there are currently no mines or extraction sites in the City. Impacts would be less than significant.

NOISE

Would the project:

Threshold c): For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Project Site is not within two miles of a public airport or public use airport, nor within the vicinity of a private airstrip. The nearest airport to the Project Site is the Bermuda Dunes Airport located approximately 2.4 miles to the southwest. The Project Site is not located within the Bermuda Dunes Airport noise contours.²³ As such, the location of the Project would not result in excessive noise for residents or employees in the Project area. No impacts would occur.

21 City of Indio. *City of Indio General Plan 2040*. Adopted September 18, 2019. "Conservation + Open Space Element." 69.

22 City of Indio. *City of Indio General Plan Update EIR (2019)*. Pages 4.11-3.

23 City of Indio. *City of Indio General Plan Update EIR (2019)*. Figure 4.12-2.

POPULATION AND HOUSING

Would the project:

Threshold a): Induce substantial 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)?

The Project proposes development of up to 1,500 homes on a site designated for development of residential uses by the Indio General Plan. The surrounding area is generally developed on the south, north, and east sides of the Project Site. With urban infrastructure available in the streets bordering the Specific Plan Area, the proposed project would not extend roads or other infrastructure, such as water or sewer lines, to any currently unserved areas. While a new IID substation or comparable infrastructure is required to adequately serve the project, and this infrastructure is expected to have excess capacity to improve system reliability and/or serve additional planned new development, such development would be consistent with the Indio General Plan and would not induce substantial population growth beyond what is already planned under the existing General Plan and analyzed in the General Plan Update EIR.

The proposed Project would develop an Active Adult Community. These age restricted households would have a smaller average household size than the rest of the City. While the proposed residential uses would directly result in the population growth in the area, the population growth from the Project is consistent with what is allowed by the current Suburban Neighborhood General Plan designation as analyzed in the City's General Plan EIR. The average household size for the proposed Project and direct population growth will be lower than that forecasted by the City's General Plan EIR. For these reasons, the Project would not result in substantial population growth not anticipated for in the City's General Plan.

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

The Project Site is vacant, and the Project would not, therefore, displace any existing housing units or people on the site. No impacts would occur.

PUBLIC SERVICES

Would the project:

Threshold a): Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable

service ratios, response times, or other performance objectives for any of the public services:
iii. Schools?

The Project would allow the development of up to 1,500 homes, which would increase the demand for public services. As the Project would provide homes for residents aged 55 and above, the Project would not generate additional students that could affect school facilities. The Project will include private recreational facilities, including a pool, tennis and pickleball courts, and community meeting rooms, which will reduce the demand from residents for certain types of park facilities. Due to the characteristics of the Project, impacts will be less than significant.

TRANSPORTATION AND TRAFFIC

Would the project:

Threshold d): **Result in inadequate emergency access?**

Access to the Specific Plan Area is proposed from the major streets bordering the site. The proposed Specific Plan would not result in inadequate emergency access to the site and would not impede existing emergency access to the existing surrounding uses. Impacts would be less than significant.

UTILITIES AND SERVICE SYSTEMS

Would the project:

Threshold e): **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

The proposed residential uses will generate typical solid waste generated within the City and collected and disposed of at landfills operated by Riverside County, in accordance with applicable regulations. Impacts would be less than significant.

WILDFIRE

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

Threshold a): **Substantially impair an adopted emergency response plan or emergency evacuation plan?**

According to the City of Indio General Plan Update EIR,²⁴ the Project Site and surrounding locations would not be affected by wildfires. The Project Site and surrounding locations are not in a Fire Hazard Severity Zone.²⁵ Furthermore, the Project would not impair the use of other rights of way. Therefore, adopted

24 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 7-2.

25 California Department of Forestry and Fire Protection. Fire and Resource Assessment Program. "Fire Hazard Severity Zones Maps FHSZ Viewer." <https://egis.fire.ca.gov/FHSZ/>. Accessed May 2022.

8.1 Effects Not Found to be Significant

emergency response plans or emergency evacuation plans would not be substantially impaired. As such, no impacts would occur.

Threshold b): Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The Project Site is topographically flat and is not located in or near state responsibility areas, nor lands classified as very high fire hazard severity zones.²⁶ In addition, the Project Site is not identified by the City as being located within an area susceptible to fire hazards.²⁷ As such, no impacts would occur.

Threshold c): Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Project Site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.²⁸ In addition, the Project Site is not identified by the City as being located within an area susceptible to fire hazards.²⁹ The Project would utilize existing roadway and utility infrastructure to connect to the proposed residential development. As such, no impacts would occur.

Threshold d): Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The Project Site is not located in or near state responsibility areas, nor lands classified as very high fire hazard severity zones.³⁰ In addition, the Project Site is not identified by the City as being located within an area susceptible to fire hazards.³¹ The Project site and surrounding areas are located on relatively flat portions of the floor of the Coachella Valley and is not located downslope or downstream of any hillside areas. For these reasons, no impacts will occur.

26 California Department of Forestry and Fire Protection. Fire and Resource Assessment Program. "Fire Hazard Severity Zones Maps FHSZ Viewer." <https://egis.fire.ca.gov/FHSZ/>. Accessed May 2022.

27 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 7-2.

28 California Department of Forestry and Fire Protection. Fire and Resource Assessment Program. "Fire Hazard Severity Zones Maps FHSZ Viewer." <https://egis.fire.ca.gov/FHSZ/>. Accessed May 2022.

29 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 7-2.

30 California Department of Forestry and Fire Protection. Fire and Resource Assessment Program. "Fire Hazard Severity Zones Maps FHSZ Viewer." <https://egis.fire.ca.gov/FHSZ/>. Accessed May 2022.

31 City of Indio. *City of Indio General Plan Update EIR (2019)*. Page 7-2.

8.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The CEQA Guidelines state that “[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely.”¹ Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with a project. Irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified. Therefore, the purpose of this analysis is to identify any significant irreversible environmental effects of Project implementation that cannot be avoided.

Implementation of the proposed Desert Retreat Specific Plan Project (“Desert Retreat Specific Plan” or “Project”) would irreversibly commit approximately 378 acres of the vacant and undeveloped Project Site for residential and open space/recreational uses. The irreversible environmental changes of this urbanization include incremental degradation of the regional air quality, additional noise created by traffic generated by future inhabitants of the Project Site, incremental demands for public services and utilities, and changes to the visual environment that will not likely be reversed. However, no significant unavoidable adverse environmental effects would result from development. Implementation of all feasible mitigation measures, conditions of approval, project design guidelines, and local, State, and federal regulations would reduce all potential impacts to less than significant.

Primary impacts would result from the consumption of nonrenewable resources during construction and operation of the Project. Nonrenewable resources such as sand, gravel, and steel, and renewable resources such as lumber, would be consumed during Project construction. Energy, fossil fuels, oils, and natural gas would be irreversibly committed during construction. These same resources are used for vehicles and heating/cooling equipment during operations. The continued use of these resources associated with Project operations represents a long-term obligation. The energy consumed in developing and maintaining the site for urban use may be considered a permanent investment.

Construction of the Project would consume limited amounts of certain types of lumber; other raw materials in steel; metals such as copper and lead; aggregate materials used in concrete and asphalt such as sand and stone; water, petrochemical construction materials such as plastic; petroleum-based construction materials; and other similar slowly renewable or nonrenewable resources. Additionally, fossil fuels for construction vehicles and equipment would be consumed. In terms of Project operations, the following slowly renewable and nonrenewable resources would be required: natural gas and electricity, petroleum-based fuels, fossil fuels, and water. The California Administrative Code regulates the amount of energy consumed by new development for heating, cooling, ventilation, and lighting

1 California Public Resources Code, Title 14, Division 6, “Chapter 3.” *California Environmental Quality Act Guidelines*. Section 15126(c).

8.2 Significant Irreversible Environmental Changes

purposes. Nevertheless, the consumption of such resources would represent a long-term commitment of those resources.²

The commitment of resources required for the construction and operation of the Project would limit the availability of such resources for future generations or for other uses during the life of the Project. However, continued use of such resources is consistent with the anticipated growth and planned changes on the Project Site and within the general vicinity.

The Project would also result in an increased commitment of certain public services to the proposed land uses, including the provision of police, fire, and emergency medical services, water supply services, wastewater treatment services, dry utilities, and solid waste disposal. However, as indicated in the respective sections of this Draft EIR, impacts associated with these public services would be less than significant.

In addition, the Project would result in a long-term, irreversible change to the nature of the Project Site. The vacant and undeveloped character of the site would be transformed into a residential community. However, as discussed in **Section 5.3: Biological Resources**, the Project Site does not contain habitat suitable for protected species and would not impact a Habitat Conservation Area.

Project implementation will cause the average daily trips (ADT) to increase substantially when combined with ambient growth in the vicinity. The increased number of vehicles will contribute to the degradation of air quality. However, the Project air quality analysis indicates that impacts to air quality would be less than significant with mitigation.

A secondary impact that results from increased traffic is an increase in ambient noise levels. Currently, the area surrounding the Project is developed with relatively medium to high ambient noise levels. Once the Project conducts roadway improvements and introduces Project traffic on those roads, the noise levels will increase, including along roadway segments next to existing sensitive receptors. However, this increase would not significantly impact sensitive receptors and would be similar to existing development.

The Project's contribution to State, national, and global greenhouse gases (GHG) emission inventories and the resultant effect on global climate change is evaluated on a cumulative basis. Secondary impacts result from fuel consumption in the form of air pollution, which both degrades air quality in general and contributes to the formation of GHGs that cumulatively affect global warming. Human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors contribute to GHG emissions. While the Project would generate GHG emissions, its contribution was found not to be cumulatively considerable.

² California Administrative Code. Title 24.

9.0 TERMS, DEFINITIONS, AND ACRONYMS

2016-2040 RTP/SCS	2016-2040 Regional Transportation Plan/Sustainable Communities Strategy
2017 Scoping Plan	California’s 2017 Change Scoping Plan
2022 Scoping Plan	California’s 2022 Climate Change Scoping Plan
A.D.	Anno Domini
AB	Assembly Bill
ac	acre
ACC II	Advanced Clean Cars II Program
AFY	acre-feet per year
Alternative 1	No Project/No Development Alternative
Alternative 2	Existing General Plan Alternative
Alternative 3	Existing General Plan Alternative/Prior Zoning-Commercial Component
Alternative 4	Residential Project with Golf Course Alternative
Alternative 5	Reduced Density Alternative
ALUC	Airport Land Use Commission
AMR	American Medical Response
AP	Alquist Priolo
APN	Assessor’s Parcel Number
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
B.P.	Before the Present
BLM	Bureau of Land Management
BMP	Best Management Practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CCR	California Code of Regulations

9.0 Terms, Definitions, and Acronyms

CCUS	carbon capture, utilization, and storage
CDFW	California Department of Fish and Wildlife
CDR	Carbon Dioxide Removal
CEQA	California Environmental Quality Act
CERT	Community Emergency Response Team
CFC	Chlorofluorocarbon
CFR	Federal Code of Regulations
cfs	cubic feet per second
CGS	California Geological Survey
CH ₄	Methane
CHBC	California Historic Building Code
CHP	California Highway Patrol
City	City of Indio
CN	Neighborhood Commercial
CNEL	Community Noise Equivalency Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CpA	Coachella Fine Sand
CRHR	California Register for Historical Resources
CRMTP	Cultural Resource Monitoring and Treatment Plan
CUP	Condition Use Permit
CUPA	Certified Unified Program Agencies
CVAG	Coachella Valley Association of Governments
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVUSD	Coachella Valley Unified School District
CVWD	Coachella Valley Water District
CWA	Clean Water Act
dB	decibel
dBA	A-weighted Decibel
DEH	Department of Environmental Health
DEIR	Draft Environmental Impact Report
DOF	Department of Finance
DPF	diesel particulate filter

9.0 Terms, Definitions, and Acronyms

DPM	Diesel Particulate Matter
DRMC	Desert Regional Medical Center
DSUSD	Desert Sands Unified School District
DTSC	Department of Toxic Substances Control
du	dwelling units
EIR	Environmental Impact Report
EMC	Eisenhower Medical Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPO	Environmental Protection and Oversight Division
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FED	Functional Equivalent Document
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
ft	foot
GbA	Gilman fine sandy loam
GHG	Greenhouse Gas
GLO	United States General Land Office
gpcd	gallons per capita per day
GWP	Global Warming Potential
HAP	Hazardous Air Pollutants
HFC	Hydrofluorocarbons
HHW	Hazardous Household Waste
HMBEP	Hazardous Materials Business Emergency Plan
HMRT	Hazardous Materials Response Team
hp	horsepower
HRA	Health Risk Assessment
HSC	California Health and Safety Code
HWMP	Hazardous Waste Management Plan
IID	Imperial Irrigation District
IMC	Indio Municipal Code
Ip	Indio fine sandy loam
IPCC	Intergovernmental Panel on Climate Change
Is	Indio very fine sandy loam

9.0 Terms, Definitions, and Acronyms

ISO	Insurance Service Office
LEV	Low-Emission Vehicle
Library	Indio Public Library
LOS	Level of Service
LPG	Liquid Propane Gas
LST	Localized Significant Threshold
MaB	Myoma fine sand
MC	Major Community Facilities
mgd	million gallons per day
MLD	Most Likely Descendent
MM	Mitigation Measure
MMTCO _{2e}	million metric tons of carbon dioxide equivalent
mph	miles per hour
MPO	Metropolitan Planning Organization
MRR	Mandatory Reporting Rule
MTBA	Migratory Bird Treaty Act
N ₂ O	Nitrous Oxide
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEV	Neighborhood Electric Vehicle
NF ₃	nitrogen trifluoride
NFIP	National Flood Insurance Program
NOC	Notice of Completion
NOP	Notice of Preparation
NO _x	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NPS	National Parks Service
NRCS	Natural Resources Conservation Service
O ₃	Ozone
OES	Governor's Office of Emergency Services
OHMS	Office of Hazardous Materials Safety
PDF	Project Design Feature
PFC	Perfluorocarbon

9.0 Terms, Definitions, and Acronyms

PFC	Perfluorinated Chemicals
PHEV	Plug-in Hybrid Electric Vehicle
PM10	particulate matter equal to or less than 10 microns in diameter
PM2.5	particulate matter equal to or less than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
PR	Parks and Recreation
Project Site	Desert Retreat Specific Plan Area
Project	Desert Retreat Specific Plan; proposed Project
psf	pounds per square foot
Qa	Alluvial deposits
Ql	Interbedded lacustrine
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
RCB	reinforced catch basins
RCFC	Riverside County Flood Control
RCFD	Riverside County Fire Department
RCRA	Resource Conservation and Recovery Act of 1976
REC	Renewable Energy Credit
RHNA	Regional Housing Needs Assessment
ROG	Reactive Organic Compound
ROW	right-of-way
RPS	Renewables Portfolio Standards
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Community Strategy
SF6	Sulfur Hexafluoride
SF ₆	Sulfur Hexafluoride
Sheriff's Department	Riverside County Sheriff's Department
SHMA	Seismic Hazards Mapping Act

9.0 Terms, Definitions, and Acronyms

SIP	State Implementation Plan
SLTA	SunLine Transit Agency
SO2	Sulfur Dioxide
SP	Service Population
SPCC	Spill Prevention Counter-measure Contingency Plan
SRA	Source Receptor Area
SSAB	Salton Seas Air Basin
State	State of California
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TCP	Traditional Cultural Resource or Property
TDM	Transportation Demand Management
TIA	Traffic Impact Analysis
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UNFCCC	United Nations' Framework Convention on Climate Change
US	United States
USACOE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United State Geological Survey
UWMP	Urban Water Management Plan
VC	Village Commercial
VOC	Volatile Organic Compound
WCD	Water Conservation District
WDID	Waste Discharge Identification Number
WGCEP	Working Group on California Earthquake Probabilities
WQMP	Water Quality Management Plan
WSA	Water Supply Assessment
WSS	Water Supply Study
WSV	Water Supply Verification

9.0 Terms, Definitions, and Acronyms

yr	year
ZEV	Zero Emission Vehicle

10.0 ORGANIZATIONS AND PERSONS CONSULTED

This Draft Environmental Impact Report (Draft EIR) was prepared by the City of Indio (City) with the assistance of Meridian Consultants LLC. Report preparers and consultants are identified as follows, along with agencies and individuals that provided information used to prepare this Draft EIR.

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