Initial Study/Mitigated Negative Declaration

Desert Knoll Residential Subdivision Project

Tentative Tract Map TTM26-000001 (TTM 20866) and Development Agreement DA26-000001

Applicant:

Steve Enochs, representing
Hakeem Milbes
29 Build, LLC
2525 El Camino Real, #165
Carlsbad, CA 92008

Lead Agency:

City of Twentynine Palms
6136 Adobe Road
Twentynine Palms, CA 92277

July 30, 2026

Environmental Checklist Form

Project title: Desert Knoll Residential Subdivision Project: Tentative Tract Map TTM26-000001 (TTM 20866) and Development Agreement DA26-000001	
Lead agency name and address: City of Twentynine Palms 6136 Adobe Road Twentynine Palms, CA 92277	
Contact person and phone number: Keith Gardner, Community Development Director 760-367-6799 x 1008 kgardner@29palms.org	
Project location: The project is located east of Desert Knoll Avenue, west of Utah Trail, and north of Manana Drive in the City of Twentynine Palms, County of San Bernardino, California. The Assessor Parcel Numbers (APNs) are 0621-231-14 and 0621-231-11. Latitude and Longitude: 34.155788 and -116.041778 on the US Geological Survey Twentynine Palms Quadrangle. It is identified as within Section 21 of Township 1 North and Range 9 East of the San Bernardino Base Meridian.	
Project sponsor's name and address: Steve Enochs, representing Hakeem Milbes with 29 Build, LLC 2525 El Camino Real, #165 Carlsbad, CA 92008	
Existing General Plan designation: Single-Family Residential (RS-3)	Existing Zoning: Single-Family Residential (RS-3)

1. INTRODUCTION

The purpose of this Initial Study (IS) is to disclose and evaluate the environmental impacts resulting from the subdivision of land and the construction and operation of residential homes associated with the proposed Desert Knoll Residential Subdivision (Project).

This document has been prepared pursuant to the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Sections 15000 et seq). The City of Twentynine Palms will serve as the lead agency for CEQA purposes.

1.1. Project Location

The project is located east of Desert Knoll Avenue, west of Utah Trail, and north of Manana Drive in the City of Twentynine Palms, County of San Bernardino, California. The site consists of 73.3 acres identified as Assessor's Parcel Nos. 621-231-11 and -14 (see Exhibits 1 through 2).

1.2. Project Description

Project Note: The subject property was previously reviewed under Tract Map 17168. At the time, the proposal was to subdivide an 88+ acre site into 177 residential lots in up to 8 phases at a density of approximately two dwelling units per acre. Only 40 lots were recorded as part of Tract 17168 with 40 homes constructed and sold. A number of the new technical studies reference the expired map as Tentative Tract Map 17168 Phases 3 to 8 (see Exhibit 3).

Applications

29 Build, LLC, the Project applicant, has filed the following applications:

Tentative Tract Map TTM26-000001 (TTM 20866): To subdivide 73.3 acres of predominately vacant land into 137 residential lots and 4 lettered lots for retention basins, waste water treatment and GeoFlow purposes. The 137 residential lots will allow for the construction and operation of 137 houses under a General Plan Land Use Designation of Single-Family Residential (RS-3) and a Zoning classification of Single-Family Residential (RS-3) with a maximum 3 dwelling units per acre.

Development Agreement DA26-000001: A Development Agreement is proposed to establish certainty concerning the uses, density, standards, timing, fees, and phased infrastructure obligations for development of the Property, while preserving the flexibility needed for a slow-absorption, multi-phase residential project. The City is proposing a term of fifteen years comprised of an initial ten years with one potential 5-year extension. The applicant is not proposing any additional cash, in-kind, or community benefit contributions or any physical community benefits to the City as part of their request.

Project Characteristics

The Project is proposing a 137-lot Tentative Tract Map on the 73.3-acres to allow for the residential development. The property owner proposes will construct 137 single-family detached residential units and infrastructure improvements. Ground surface visibility ranges from 100 percent within most of the Project area to near zero percent in small portions of the Project area that contained dense vegetation. Disturbances included push piles and modern refuse. A fenced enclosure containing a small shed, an above ground retention basin, and related equipment is located near the northwestern boundary of the Project area (see Exhibit 4).

Access and Circulation

Access to the Project site will be from Desert Knoll Avenue on the west and Utah Trail on the east. Both of the roads are paved adjacent to the Project site. The subdivision map proposed to extend Samarkand Drive through the northern portion of the map to connect to Utah Trail. Offsite developments include half street improvements for the adjacent stretch of Desert Knoll Avenue.

Single-Family Residential Development

The applicant proposes a total of 137 new, detached, single-family residential houses. The project applicant has designed the project to incorporate three architectural styles: Mid-Century Modern, Tropical, and California Traditional. The typical features of each style are incorporated into each unit of that particular design, but based on the location of each unit, various enhancements are included. There are three plan types proposed ranging in size from a Plan 1 at 1,827 square feet, Plan 2 at 2,371 square feet and Plan 3 at 2,389 square feet. The R-3 development standards require that no building or structure shall have a height in excess of thirty-five feet. Proposed Project elevations anticipate the highest elevation at 20 feet, 3 inches on a Plan 3 which is compliant with the R-3 standards. All homes will be constructed with solar photovoltaic systems standard and will incorporate the latest energy efficiency technology as required by the California Energy Commission.

New Infrastructure

Drainage – There are no proposed storm drains as part of this development. The onsite developments proposed consist of 137 residential lots, onsite and offsite street improvements, and two retention ponds. Impact to the site from offsite flows was considered along the western and southern boundaries. The offsite tributary is comprised of approximately 67 acres. Using the NOAA Atlas 14 Point Precipitation Frequency Estimates Twentynine Palms County Y Station ID: 79-9004 and an Antecedent Moisture Condition Map (AMC) value of AMC I, the runoff generated during a 24-hour, 100-year event amounts to 402 CFS. 253 CFS will impact the western boundary and will be conveyed north along Desert Knoll Avenue as street flow and 149 CFS will impact the southern boundary. Offsite runoff that impacts the southern boundary will convey east along Two Mile Road, as street flow. Street flows conveyed along Two Mile Road and along Desert Knoll Avenue are contained within their respective rights-of-way and do not impact the onsite development. Structures and residences proposed within the Flood Hazard Zone “AE” will be constructed at or above their respective, designated Base Flood Elevations.

Sanitary Sewer **–** The applicant proposes to complete the building of a wastewater collection, treatment, and disposal system to service the subdivision. The subdivision will generate up to 49,560 gallons per day (gpd) of domestic wastewater. The wastewater treatment facility (WWTF) will consist of an activated sludge package treatment plant with a rated capacity of 50,000 gpd. The facility will include metering instrumentation, screening, grit removal, a flow equalization basin, two (2) extended

aeration tanks, two (2) secondary clarifiers, one (1) aerobic sludge digester, and one (1) chlorine contact tank for disinfection. The plant may be operated in nitrification/denitrification mode.

The original Project (TM 17168) proposed and approved a GeoFlow subsurface drip irrigation system to irrigate street parkways on public property. These subsurface areas were planned for the parkways along B, G, and H Streets. The street parkway GeoFlow system was not completed; instead, an alternate 36,000-square-foot area was built near the WWTP. The current Project proposes a 90,132-square-foot GeoFlow field in the northeast corner of the site (Lot D), and the existing GeoFlow field will be removed near Lots 53-54. Six seepage pits are available for backup disposal when parts of the subsurface irrigation system are inoperative due to maintenance or repair. Solids and sludge will be removed from the treatment train by a licensed septage hauler, and disposed of pursuant to state regulation.

Domestic Water **–** Domestic water will be provided to the Project by Twentynine Palms Water District through a connection to the existing main in Desert Knoll Avenue and distributed through a public water system to individual meters for each house, and to a common irrigation meter. Fire sprinkler flow will be supplied by individual house meters.

Dry Utilities **–** The Project will be served with a new underground electric distribution system. Southern California Edison will provide connections to the existing power systems. Frontier Communications has indicated that they are able to provide telephone, video and data services to the site.

Solid Waste Collection **–** Trash storage will be in the garage or side yard of each residential lot, and containers (green waste, landfill, and recyclables) will be picked up by Burrtec Waste & Recycling Services (City franchisee) weekly.

Project Phasing and Construction

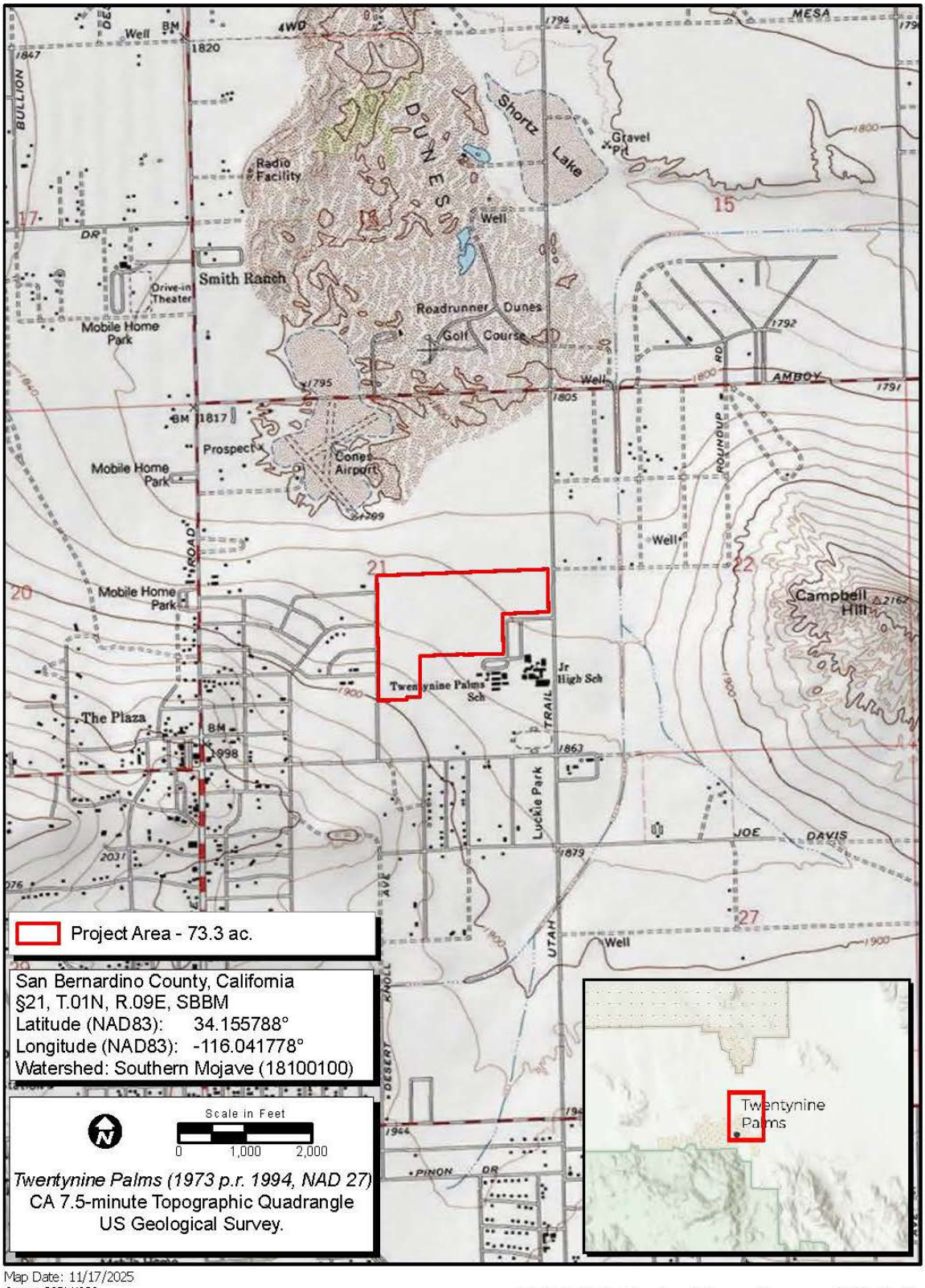
The proposed Project will be constructed in the six phases anticipated to begin in October 2026 and running through April 2039. For purposes of analysis, however, construction is conservatively assumed to begin in June 2026 and would last through December 2027. This timeframe suggests a more rapid and intense construction period than is anticipated to occur, likely resulting in higher emissions over a short period of time for analytical purposes. Given the probable extended timeline discussed above, this assumption overestimates the intensity of air quality impacts. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines.

Other Entitlements and Permits

In addition to City entitlements, other agencies may require permits for the Project, including the California Department of Fish and Wildlife for an incidental permit.

1.3. Surrounding Land Uses

The subject property is predominately vacant with a R-3 zoning classification. Disturbances include push piles and modern refuse. A fenced enclosure containing a small shed, an above ground retention basin, and related equipment is located near the northwestern boundary of the Project area. The property to the north is vacant and zoned Public. The property immediately to the south adjacent to Desert Knoll Avenue is zoned RS-3 is developed with single-family residences associated with Tract 17168, next is a vacant parcel and the Twentynine Palms Elementary School both under a zoning classification of Public. The lands to the west of Desert Knoll Avenue are developed with a residential subdivision and vacant land and are within the RS-3 zone. The lands to the east include the Twentynine Palms Junior High School with a zoning classification of Public and vacant land to the east of Utah Trail within a RS-2 zone.



Map Date: 11/17/2025
Sources: ESRI, USGS

Exhibit 1. Project Location and Vicinity

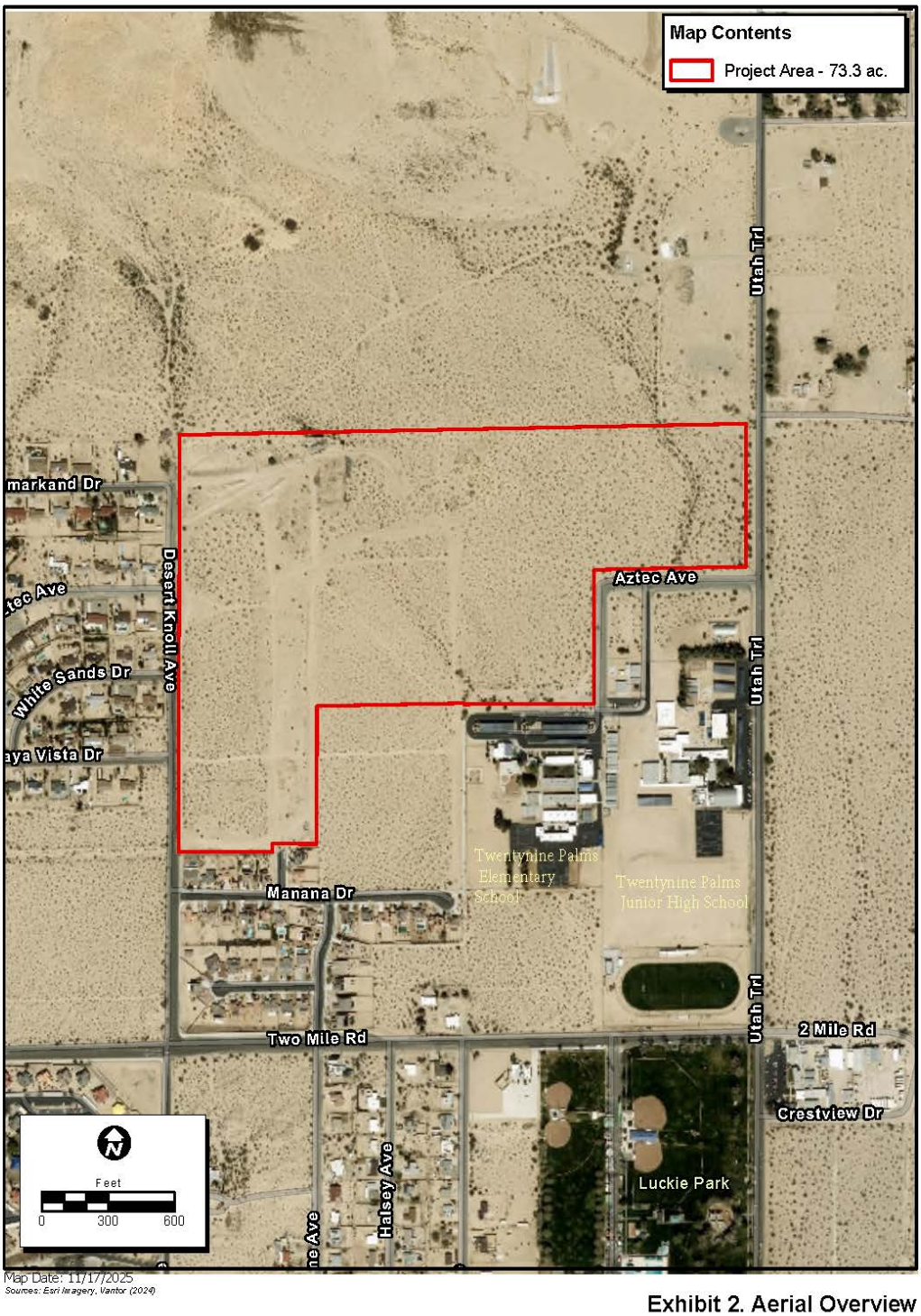


Exhibit 2. Aerial Overview

Exhibit 3. TTM 17168 Phase 3 to 8 Site Plan

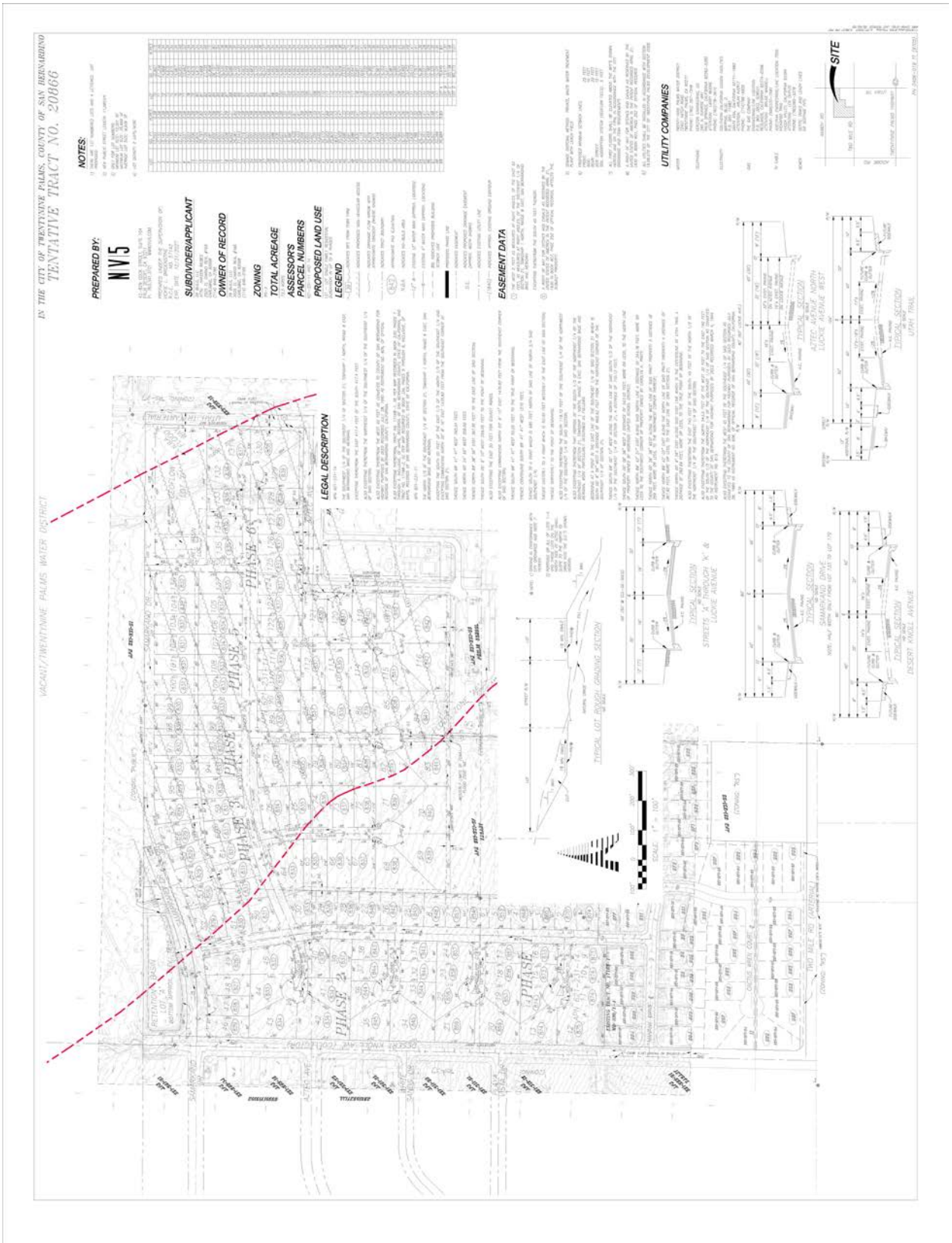


Exhibit 4. Tentative Tract Map 20866

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

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

Signature

7/29/26
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Sources: City of Twentynine Palms Development Code; Google Earth; City of Twentynine Palms General Plan; application materials.

Environmental Setting

Twentynine Palms (City) is located in the southwestern corner of the Mojave Desert. The City is geographically defined by the Bullion Mountains to the north, the Queen Mountains to the south, the Valley Mountains to the northeast, and the Twentynine Palms Mountains to the southeast. The City is characterized by its rich desert landscape, small town living, and its proximity to the Joshua Tree National Park and the Marine Corps Ground Air Combat Center.

The City encompasses approximately 37,600 acres of land occupied by residential, commercial, industrial, and public facilities. Residential land-use dominates the urban landscape, accounting for approximately 97% of total development. The proposed site is located to the central portion of the City and is bound by undeveloped vacant lands to the north and south, single-family residential development to the west and south, and vacant land and public facilities (schools) to the east.

Scenic resources in Twentynine Palms include the desert landscape adjacent to the Joshua Tree National Park, Mesquite Dunes and Bosque (MDB) including the Mesquite Lake Playa and the Mesquite Springs, as well as the hillsides to the north and south. In an effort to conserve and protect these scenic resources and vistas, the City prohibits and/or limits development that interferes with the Joshua Tree National Park Buffer Overlay, Mesquite Dunes Overlay, and the Hillsides Overlay.

The site is a predominately undeveloped parcel with a fenced enclosure containing a small shed, an above ground retention basin, and related equipment is located near the northwestern boundary of the Project area. The property is at an elevation ranging from ±1,819 to ±1,887 feet above mean sea level. Current conditions include sandy soil and scattered native vegetation. The Project's development would result in the subdivision of 73.3-acres into 137 residential lots for the ultimate construction of 137 single-story dwellings, an on-site wastewater treatment system and roadways and utility infrastructure.

Discussion of Impacts

a) **Less Than Significant Impact.** A significant impact would occur if the proposed Project would have a substantial adverse effect on a scenic vista. A scenic vista is generally defined as a public view of highly valued visual and scenic resources exhibiting a unique or unusual feature, such as mountains, hillsides or bodies of water. An impact on a scenic vista would occur if the bulk or design of a structure or development permanently diminishes the quality of the valued view.

The proposed Project will result in the subdivision of land into 137 lots for residential development and the construction of single-family residences on the 73.3-acre site. The site slopes downward from south to north. Views of scenic vistas from properties and roadways to the south will not be impacted by the proposed Project, because the valued views are primarily to the south. From the east and west, views would not be significantly affected by the proposed Project.

All development and activities related to the Project's operation will be associated with typical single-family uses. The maximum permitted building height is 35 feet. All structures are proposed to be single-story with a maximum height of 20 feet, 3 inches. Given the low building profiles, on-site structures are not expected to reduce or limit the visibility of the mountain range for onsite occupants or development within the Project area. Any impacts related to the Project's development are reduced by the Project's design and compliance with the City's development standards. For these reasons, impacts associated with scenic vistas are expected to be less than significant.

b) **No Impact.** There are no designated scenic roadways or highways adjacent to the Project site, nor are there significant rock outcroppings, trees or historic buildings on or adjacent to the property. The Twentynine Palms 2012 General Plan classifies the local mountain range as a scenic resource and SR-62 as a scenic highway. Twentynine Palms Highway (SR-62), located approximately 1.26 miles south of the site. The project's distance from the highway, as well as the slope of the property downward to the north, will prevent impacts to the scenic highway. No impact will occur.

c) **Less Than Significant Impact.** The Project is located in a developed area of Twentynine Palms. Single family residential properties are west of the site adjacent to Desert Knoll Avenue, the Twentynine Palms Elementary School and

Twentynine Palms Junior High School are immediately to the south and east, and vacant land is to the north. The zoning is consistent with low density development. According to the City's General Plan and Zoning Map, the site is designated Single-Family Residential (RS-3). As described in response I.a-b) above, the development of the Project will not impact scenic resources or block scenic vistas. The low density of dwelling units will not impact the visual character of the area, as the units will not dominate the landscape. By law, the Project will comply with any applicable development standard and ordinance. The Project will not conflict with any land use/zoning designation or governing regulation. Less than significant impacts would result to the visual character of the area.

d) **Less Than Significant Impact.** The city mandates all outdoor light fixtures have a shield to focus light downwards and reduce the amount of light pollution emitted onsite (Code Section 19.78.050). In accordance with the City Municipal Code, the Project will be required to reduce light pollution by operating low and downward focused light fixtures. The standardized practice will reduce the Project's light pollution and thus, the Project is not expected to adversely affect day and nighttime views. Impacts related to light and glare are expected to be less than significant.

Mitigation Measures: None required.

Monitoring: None required.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)),				X

timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Sources: Farmland Mapping and Monitoring Program, CA Dept. of Conservation; General Plan Land Use Map; Google Earth.

Environmental Setting

Agricultural production is generally not active in the Morongo Basin, nor in the City of Twentynine Palms. Commercial farming has not occurred in the City for decades, likely due to its arid environment. Neither the General Plan nor the Development Code contain agricultural or forestry designations or districts, but in certain districts agricultural and related uses are allowed with a Conditional/Administrative Use Permit or other restrictions.

Discussion of Impacts

a) **No Impact.** According to the California Department of Conservation, the City and its surrounding communities were not mapped in the Farmland Mapping and Monitoring Program (FMMP). The Project is not proposed on lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, according to the California Dept. of Conservation, nor is it used for agricultural purposes. The Project will have no potential to convert designated Farmland, no impact will occur.

b) **No Impact.** The Project is designated Single-Family Residential (RS-3) on the General Plan and Zoning map. Under this designation, row, field, and tree crops for noncommercial purposes are permitted subject to the following: *For those uses which do not require large amounts of water, to be determined in consultation with the water district.* The Project will occur entirely within the parcel boundaries, and will not impact the potential for neighboring properties to be farmed, should such a request be made by a surrounding property owner. There are no Williamson Act contracts on the Project site or surrounding properties, and the Project will have no impact on such contracts. The Project will not conflict with existing agricultural zoning or Williamson Act contract, and no impact will occur.

c-d) **No Impact.** The site is located on the desert floor part of the southern region of the Mojave Desert. There are no forest or timber lands or timberland resources found within proximity to the site. The Project's development will not result in the loss of forest land for non-forest use. No impacts will occur.

e) **No Impact.** As discussed above, the City has no forest or timberlands, and the Project will not impact agricultural activities allowed in the Single-Family Residential district, should such activities be proposed on surrounding lands in the future. No impact will occur.

Mitigation Measures: None required.

Monitoring: None required.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

Sources: City of Twentynine Palms General Plan; MDAQMD 2020 CEQA; Federal Conformity Guidelines; project materials and Tentative Tract Map 17168 Phases 3 to 8 Air Quality Analysis prepared by Urban Crossroads dated January 20, 2026 (Appendix A).

Environmental Setting

The City of Twentynine Palms lies within the Mojave Desert Air Basin (MDAB), and is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). MDAQMD is geographically the second largest of the 35 air districts in the State of California. All development within the City is subject to MDAQMD's 2020 "California Environmental Quality Act (CEQA) and Federal Conformity Guidelines." MDAQMD operates and maintains 13 regional air quality monitoring stations in different cities

throughout its jurisdiction. Relative to the Project site, the nearest long-term air quality monitoring site for O_3 was obtained from the MDAQMD Joshua Tree NP - Black Rock monitoring station, located approximately 20.69 miles southwest of the Project site in Joshua Tree. Data for CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained from the SCAQMD Coachella Valley 1 monitoring station, located approximately 34.37 miles southwest of the Project site in Palm Springs. It should be noted that the Coachella Valley 1 monitoring station was utilized in lieu of the Joshua Tree NP - Black Rock monitoring station only where data was not available from the nearest monitoring site.

Criteria air pollutants are contaminants for which state and federal air quality standards (California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS)) have been established. MDAQMD is in nonattainment for ozone (O_3) and inhalable particulate matter less than 10 microns in size (PM_{10}) under the California and National Ambient Air Quality Standards (CAAQS and NAAQS, respectively). As a result, MDAQMD has adopted federal attainment plans for ozone and PM_{10} under the Federal Clean Air Act. Ambient air quality in the MDAQMD, including the Project area, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, particulate matter less than 2.5 microns in size, sulfur dioxide, lead, sulfates, hydrogen sulfide, or visibility reducing particles.

The Project will contribute to an incremental increase in regional ozone and PM_{10} emissions during construction. During operation, the Project is expected to result in minimal emissions associated with maintenance and inspection trips at the Project.

Discussion of Impacts

a) **Less Than Significant Impact.** According to MDAQMD's 2020 CEQA and Federal Conformity Guidelines, a project is considered non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area relative to the applicable land use plan.

The current General Plan Land Use Map (December 2022) designates the Project site as Single-Family Residential – 3 du/ac (RS-3). The RS-3 land use provides for the development of single-family residences. Development is characterized generally by single-family detached homes on individual lots forming a cohesive neighborhood. The RS-3 land use allows for tract development with generally larger lots than typically found in small-lot subdivisions. The Project applicant proposes land uses that are consistent with

development anticipated under the site's existing General Plan designation. The Project would therefore conform to local land use plans.

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visible Emissions), 402 (Nuisance), 403 (Fugitive Dust), and 1113 (Architectural Coatings). As previously stated in Section ES.2 of this AQIA, the Project would implement MDAQMD Rule 403 and MDAQMD Rule 1113.

The Project construction and operational-source emissions would not exceed applicable MDAQMD significance thresholds as shown in Appendix A. As such, the Project would not have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality for on-going Project operations.

The Project's proposed land use designation for the subject site is consistent with the land use designation discussed in the General Plan. Additionally, the Project would not exceed the applicable regional thresholds during construction or operations for emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ and would therefore be considered to have a less than significant impact. The Project is therefore considered to be consistent with the AQMP.

b) **Less Than Significant Impact.** A significant impact could occur if the Project would make a considerable cumulative contribution to federal or State non-attainment pollutants. The Mojave Desert portion of the MDAB is classified as a "non-attainment" area for ozone and PM_{10}. Cumulative air quality impacts are evaluated on a regional scale (rather than a neighborhood scale or city scale, for example) given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. Any development project or activity resulting in emissions of PM_{10}, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and PM_{10}.

Currently MDAQMD's approach to assessing cumulative impacts is based on the MDAQMD Attainment Plan forecasts for attainment of ambient air quality standards in accordance with the requirements of the California Clean Air Act (CCAA), which consider the regional forecasted future regional growth. Therefore, if all projects are individually consistent with the growth assumptions within MDAQMD's Attainment Plan, and criteria pollutant emissions do not exceed MDAQMD's recommended regional thresholds of significance, future development would not impede the attainment of ambient air quality standards.

The proposed Project will result in air quality emissions during construction, including the use of heavy equipment for grading, as well as the generation of dust, and associated particulate matter. The Project's construction emissions must be quantified to determine whether they will meet or exceed the MDAQMD's thresholds of significance, or whether they will cumulatively impact air quality in the City. CalEEMod Version 2022.1.1.35 was used to project criteria

pollutant emissions that will be generated by the proposed Project (Appendix A). The model applies default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data was input into the model. Project-specific information input into the model was derived from the project description and from supplemental information provided by the Project traffic report and engineering materials.

Criteria air pollutants will be released during both the construction and operation phases of the proposed Project, as shown in Tables 1 and 2. Table 1 summarizes short-term construction-related emissions, and Table 2 summarizes ongoing emissions generated during operation.

Construction Emissions

Short-term emissions of air quality pollutants will occur during site preparation, grading, building construction, and paving. Sources of construction-related emissions include the operation of construction equipment, material imports and exports, as well as vehicles transporting workers to and from the Project site. The proposed Project is anticipated to begin construction in June 2026 and would be implemented in six (6) construction phases. It is anticipated that approximately 29 dwelling units would be constructed per phase with each phase having an approximately duration of eight (8) months. Phase 1 is expected to commence in June 2026, while phases 5 and 6 would occur with overlapping construction activities and are anticipated to be completed in April 2029. This construction schedule reflects the phased development of the Project. Overall development could take up to three (3) years for the Project to be completely built out.

For purposes of analysis, however, construction is conservatively assumed to begin in June 2026 and would last through December 2027. This timeframe suggests a more rapid and intense construction period than is anticipated to occur, likely resulting in higher emissions over a short period of time for analytical purposes. Given the probable extended timeline discussed above, this assumption overestimates the intensity of air quality impacts. The construction schedule utilized in the analysis represents a “conservative” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines.

As shown in Table 1, emissions generated by construction activities will not exceed MDAQMD thresholds for any criteria pollutant during construction. The data reflect average daily unmitigated emissions over the construction period,

including summer and winter weather conditions. The analysis assumes soils will balance on-site. Applicable standard requirements and best management practices include, but are not limited to, the implementation of a dust control and management plan in conformance with MDAQMD Rule 403. Given that criteria pollutant thresholds will not be exceeded and standard best management practices will be applied during construction, impacts will be less than significant.

TABLE 1: CONSTRUCTION EMISSIONS SUMMARY

Year	Emissions (lbs/day)					
	ROG	NO_X	CO	SO_2	PM10	$PM_{2.5}$
Summer						
2026	4.60	40.00	40.00	0.08	7.70	4.40
2027	16.00	31.00	47.00	0.07	2.20	1.30
Winter						
2026	4.60	40.00	39.00	0.08	5.30	2.80
2027	16.00	31.00	45.00	0.07	2.20	1.30
Maximum Daily Emissions	16.00	40.00	47.00	0.08	7.70	4.40
MDAQMD Regional Thresholds	137	137	548	137	82	65
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix A.

Operational Emissions

Operational emissions are ongoing emissions that will occur over the life of the project. They include area source emissions, emissions from energy demand (electricity), and mobile source (vehicle) emissions. Table 2 provides a summary of projected emissions during operation of the proposed project at build out. As shown below, operational emissions will not exceed MDAQMD thresholds of significance for any criteria pollutants for operations. Impacts related to operational emissions will be less than significant.

TABLE 2: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	ROG	NOX	CO	SO2	PM10	PM2.5
Summer						
Mobile	6.10	6.10	58.00	0.14	12.00	3.20
Area	7.10	2.30	8.70	0.01	0.19	0.19
Energy	0.06	1.10	0.46	0.01	0.09	0.09
Maximum Daily Emissions	13.26	9.50	67.16	0.16	12.28	3.48
MDAQMD Regional Thresholds	137	137	548	137	82	65
Threshold Exceeded?	NO	NO	NO	NO	NO	NO
Winter						
Mobile	5.40	6.60	44.00	0.13	12.00	3.20

Area	6.40	2.30	0.97	0.01	0.18	0.18
Energy	0.06	1.10	0.46	0.01	0.09	0.09
Maximum Daily Emissions	11.86	10.00	45.43	0.15	12.27	3.47
MDAQMD Regional Thresholds	137	137	548	137	82	65
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

As shown above, both construction and operation of the proposed Project will result in criteria emissions below the MDAQMD significance thresholds, and neither would violate any air quality standard or contribute substantially to an existing or projected air quality violation. As indicated under response III.a), above, the proposed Project is not directly growth-inducing. Therefore, the Project is expected to be consistent with the growth assumptions within the MDAQMD's Attainment Plan. Overall, impacts related to construction and operation will be less than significant and are not cumulatively considerable from a non-attainment standpoint.

c) **Less Than Significant Impact.** A project would have a significant impact if the proposed project would expose sensitive receptors to substantial concentrations of criteria air pollutants or toxic air contaminants (TACs) including asbestos, diesel particulate matter (diesel PM) from construction equipment and vehicle traffic, and fugitive dust from construction activity. According to the MDAQMD CEQA and Federal Conformity Guidelines, residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated:

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet:
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

The proposed Project's land use does not include the above uses. The closest sensitive receptors to the site are single family residences and the two schools located immediately south from the development area. However, the Project does not propose uses listed above, and therefore is not considered a potentially hazardous site that could potentially impact neighboring sensitive receptors. As such, no analysis for sensitive receptors is required. Additionally, results of the regional analysis indicate that the Project will not exceed the MDAQMD significance thresholds during construction or operations. Therefore, sensitive receptors would not be subject to a significant air quality impact during Project construction and operational activities.

Construction activities associated with the proposed Project would vary both temporally and spatially. The construction emissions were found to be less

than significant, as indicated above in Response III.b), above. Therefore, construction of the Project will not expose sensitive receptors to substantial pollutant concentrations and impacts are considered less than significant.

The Project also has an on-site wastewater treatment plant (WWTP). Applicable WWTP equipment such as emergency generators would be subject to permit requirements of MDAQMD and/or CARB, which require new or modified emission units, be equipped with the current BACT for all subject air contaminants. Therefore, diesel particulate emissions from project operational emissions are not expected to increase health risk at the nearest receptors; and, therefore, would be less than significant.

d) **No Impact.** Typical land uses development that pose potential odor problems include wastewater treatment plants, refineries, landfills, composting facilities and transfer stations. The occurrence and severity of odor impacts depend on such factors as the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of the receptors. While offensive odors rarely cause physical harm, they can be unpleasant and raise public concern

The proposed Project will result in the development of a residential subdivision on 73.3-acres. There is some potential for odors to occur during construction, primarily from the emissions of heavy equipment, but these odors would occur primarily during the grading phase of the Project, would disperse quickly, and would be temporary. The operation of residences is not expected to generate any odors, as they do not typically emit any odor-causing materials. No impact is expected.

The proposed Project includes a wastewater collection system and treatment plant and has the potential to generate objectionable odors. The Project would not result in uncontrolled sources of odor during operations. The proposed WWTP is required to include odor control technology to capture and treat foul air produced by raw wastewater before it is exhausted from channels and tanks, which will be fully enclosed. In addition, much of the WWTP operation will be housed in an enclosed structure, which will further minimize the release of odors and limit the impacts to surrounding sensitive receptors. Application of standard odor control technology will ensure potential impacts associated with odor would remain less than significant.

Mitigation Measures: None required.

Monitoring: None required

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
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?			X	
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?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (General Plan)		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); and Focused Survey for Agassiz's Desert Tortoise, Habitat Assessment for Burrowing Owl, and General Biological Resource Assessment for a 72.5 acre ± site (Phase 3-8 of TT 17168) in the City of Twentynine Palms, San Bernardino County, California prepared by Circle Mountain Biological Consultants, Inc. dated January 2026.

Environmental Setting

The City of Twentynine Palms is located within the Mojave Desert biome in a portion of the western Mojave Desert in San Bernardino County, California. The primary vegetation community in the City is Creosote bush scrub. The Project site is also crossed by desert dry washes and braided alluvial fans, which may qualify as waters of

the State of California. There are no waters of the US in the City, due to the lack of connection to a navigable waterway.

The City participates in the West Mojave Plan, which serves as a habitat conservation plan for both public and private entities in the West Mojave Desert. It encompasses approximately 9.4 million acres of land that includes deserts throughout San Bernardino, Kern, Inyo, and Los Angeles Counties. Portions of the plan include requiring focused surveys for Special Status Species, burrowing owl, and sensitive plants where suitable habitat is present.

Twentynine Palms is located in the southwest corner of the Mojave Desert Province, within the Morongo Basin. The City's desert landscape, dry lake beds, and ecological habitats support a diverse set of wildlife and plant species. 36 wildlife and 16 plant species are listed as species of concern and are known to or may potentially exist within the City. The City's General Plan Conservation and Open Space Element, Table OS-3 in the Technical Appendix lists all the species of concern and the agency responsible for their protection.

Twentynine Palms is known to harbor the desert tortoise, the most recognized high desert species in the region. The desert tortoise occurs in the Mojave Desert Province, within alluvial fan, desert wash, and scrub habitats. Ongoing threats, including population loss, habitat degradation and fragmentation due to development have resulted in the desert tortoise being listed as a federal and state threatened species. As such, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) have established regulations to allow development to occur within a strict framework that ensures potential impacts to the desert tortoise population and sensitive habitat are reduced to the greatest extent. CEQA further requires all new developments avoid potential impacts to the desert tortoise and any other federal, state, and/or local listed species.

A site-specific biological resource assessment report was prepared in January 2026, by Circle Mountain Biological Consultants, Inc. (CMBC) (Appendix B). The report consists of a literature review, record search, and biological field survey to determine the Project's biological impact onto the native habitat. The following analysis is based on the findings of the report.

Discussion of Impacts

a) **Less Than Significant Impact with Mitigation.** The site is a predominately undeveloped ±73.3-acre property consisting of desert terrain and a fenced enclosure containing a small shed, an above ground retention basin, and related equipment is located near the northwestern boundary of the Project Area. Surrounding the site are single-family residential properties to the west and south, vacant lands to the north, south and east, a junior high school to the east and an elementary school to the south.

A biological field survey was conducted at the Project site on November 17 and 18, 2025. The biologist evaluated the site to assess the habitat onsite and the site's probability to support species of concern. The results indicate that the Project site is disturbed in the form of paved roadways located along the Project's western and eastern perimeter. Nonetheless, the site is identified as a suitable habitat for dominant plant species, wildlife, and species of concern.

No special status species were detected during the field survey; however, there is the potential for five plant and six wildlife special status species including invertebrates, reptiles, mammals, and birds to occur within the Project area. Each of the potential species is addressed below. In addition, in order to assure that impacts to species during the construction process remain less than significant overall, Mitigation Measure BIO-3, below, requires that construction personnel be educated on special status species prior to the initiation of construction, so that they can prevent impacts to sensitive species.

Common Biological Resources

The site is vegetated by Mojavean creosote bush scrub with an alkaline influence. Soils are sandy loam. Within the north/central area, some elevated sand dunes, vegetated with mesquite (*Prosopis glandulosa)* are found. Such areas are often referred to as "mesquite hummocks." Though not particularly diverse in terms of vegetation, mesquite hummocks provide a very important resource to reptiles, birds, and mammals. Dune hummocks often provide habitat for fringe-toed lizards and various sand-adapted snake species, though none was observed on-site. Migrant birds are commonly observed resting and foraging among the mesquite shrubs. Local birds may nest there.

Both small mammals, such as the round-tailed ground squirrel, and larger mammals, such as bobcats and coyotes, use these areas as primary residences and for cover, respectively. No blueline streams designated by the USGS occur on-site. Although there are no major stream courses on-site, there are places along the eastern boundary and near the northwestern corner where runoff from adjacent residential areas supports several species that are typically associated with wetter areas. Some plants observed in these areas included Catclaw Acacia (*Acacia greggii*), Smoke Tree (*Psorothamnus spinosus*), Sweetbush (*Bebbia juncea*), and Sandpaper Plant (*Petalonyx thurberi*).

Fifty-one plant species were identified during the survey. Dominant species include Creosote Bush (*Larrea tridentata*), Burrobush (*Ambrosia dumosa*), White Rhatany (*Krameria grayi*), Cheesebush (*Ambrosia salsola*), and Indigo Bush (*Psorothamnus emoryi*). Four-winged Saltbush (*Atriplex canescens*), Allscale (*Atriplex polycarpa*). The bunch grass commonly known as Big Galleta (*Hilaria rigida*) was observed throughout the undisturbed areas of the site, primarily to the north and eastern portions.

Two reptile species were observed, the Side-blotched Lizard (*Uta stansburiana*) and Red Racer (*Coluber flagellum*). Other locally common

reptile species that may occur include Zebra-tailed Lizard (*Callisaurus draconoides*), Long-nosed Leopard Lizard (*Gambelia wislizenii*), Desert Horned Lizard (*Phrynosoma platyrhinos*), desert night lizard (*Xantusia vigilis*), glossy snake (*Arizona elegans*), Gopher Snake (*Pituophis melanoleucus*), Long-nosed Snake (*Rhinocheilus lecontei*), and various rattlesnake species (*Crotalus* ssp.).

Eleven bird species included Common Raven (*Corvus corax*), Rock Dove (*Columba livia*), Mountain Bluebird (*Sialia currucoides*), American Kestrel (*Falco sparverius*), Says Phoebe (*Sayornis says*), Lesser Nighthawk (*Chordeiles acutipennis*), Verdin (*Auriparus flaviceps*), and Mourning Dove (*Zenaida macroura*). The five mammal species identified during the survey included Botta Pocket Gopher (*Thomomys bottae*), Audubon cottontail (*Sylvilagus audubonii*), Black-tailed Hare (*Lepus californicus*), Coyote (*Canis latrans*), and Bobcat (*Lynx rufus*).

Uncommon Biological Resources

Agassiz's Desert Tortoise. No tortoise sign was found either on-site or in adjacent areas during this focused protocol survey for the species (USFWS 2019). Based on the absence of tortoise sign on the subject property, in adjacent areas, and reported from the region, CMBC concludes that Agassiz's desert tortoise is absent from the subject property and action area. Also, there is low likelihood of wild tortoises entering the site from adjacent areas, either to pass through the site or establish residency.

With the publication of the Bureau of Land Management's (BLM) Record of Decision (BLM 2016), the Desert Renewable Energy Conservation Plan (DRECP) revised the 1980 California Desert Conservation Area Plan (CDCA Plan; BLM 1980) in significant ways for the conservation and recovery of desert tortoises in the California Deserts. Although desert tortoise critical habitat was not changed (USFWS 1994a), Desert Wildlife Management Areas (DWMAs; USFWS 1994b) and Multiple Use Classes on BLM lands were eliminated. In addition to critical habitat, the two main designated areas under the DRECP CDCA Plan amendment that provide for tortoise conservation and recovery are Areas of Critical Environmental Concern (ACECs) and California Desert National Conservation Lands (CDNCLs). The subject property is not found within any of these conservation areas.

The subject property is approximately 3.3 miles west of the nearest CDNCL-designated lands in the Pinto, Lucerne Valley, and Eastern Slopes CDNCL subarea. As per the official DRECP website (www.drecp.org), the subject property is located 3.3 miles west of the nearest desert tortoise ACEC, which is the Pinto Mountains ACEC. The site is not found within Agassiz's desert tortoise critical habitat, which was designated in 1994 (U.S. Fish and Wildlife Service 1994a). The nearest critical habitat area is the Pinto Mountains Critical Habitat Unit, which is located approximately 3.3 miles east of the site.

U.S. Fish and Wildlife Service (2008), California Department of Fish and Wildlife [CDFW 2025a for California Natural Diversity Data Base; 2025b for Special Plant Species list; 2025c for Special Animal Species list; and California Native Plant Society (CNPS 2025)] maintain lists of animals and/or plants considered rare, threatened, or endangered, which are herein collectively referred to as "special status species." Regulatory agency-designated special status species other than desert tortoise that were identified during the current survey included one prairie falcon (*Falco mexicanus)*, observed flying over the site. Life history and occurrence information for rare species observed during the survey, on one or more of the sites or reported to the CNDDB are given in the next few subsections.

Prairie Falcon (*Falco mexicanus*) is designated as a Watch List species by CDFW (2025c) and a Bird of Conservation Concern by the USFWS (2008). In addition to the one observed during the survey, Prairie Falcons have been reported to the CNDDB (CDFW 2025a), which does not disclose the location of this species to protect nesting sites. There are no suitable nesting substrates (cliff faces and other inaccessible areas) onsite but foraging habitat exists throughout. One animal was observed onsite during the survey, circling the area and flying to the north.

Loggerhead Shrike (*Lanius ludovicianus*) is designated as a California Species of Special Concern by CDFW (2025c) and a Bird of Conservation Concern by the USFWS (2008). Breeding habitat in the southern California deserts is typically relatively open desert scrub or sparse riparian woodland. Tall shrubs or trees (often Joshua trees) are an important feature. This species is known for its habit of impaling prey such as large insects, lizards, and small snakes on sharp thorns or spikes on vegetation or on barbed wire fences. The species was observed during previous CMBC surveys about 0.5 miles to the north-northwest (CMBC 2025), 1.0 mile west (CMBC 2004c), and 0.78 mile west (CMBC 2004d). While not observed during this survey, perch sites and foraging habitat are present onsite and in adjacent areas.

Cooper's Hawk (*Accipiter cooperi*) is a year-round resident raptor species that is designated as a Watch List species by CDFW (2025c). One Cooper's hawk was observed during the survey. An additional four observations which were previously recorded during CMBC surveys including 1.0 mile to the west (CMBC 2004c), 1.38 miles to the south-southeast (CMBC 2008), 0.50 mile to the north-northwest (CMBC 2025) and 1.38 miles to the south (TMC 1990). There are no nesting sites on the subject property but there are foraging habitats throughout, and plenty of small and medium-sized birds on which Cooper's Hawks can prey.

Mesquite bosque/thickets, once considered a Community of Highest Inventory Priority (CHIP; CDFW 2010), the latest list of California State Sensitive Natural Communities lists nine forms of Mesquite Thickets (CA code 61.514.00), including one that is dominated by honey mesquite (*Prosopis*

glandulosa var. *torreyana*), which is the species that occurs onsite. "Bosque" and "thicket" seem to be interchangeable terms that imply a forest or significant accumulation of mesquite trees. CDFW considers it imprudent to remove the Holland (1986)-based elements from the CNDDB before assessing them and reclassifying them in terms of the currently accepted state and national standards for vegetation classification. Their existence should be addressed in the environmental review processes of CEQA and its equivalents, along with occurrences of plants and animals tracked by the CNDDB. CMBC identified 10 honey mesquite hummocks and 13 individual mesquite trees.

Alverson's Foxtail Cactus (*Coryphantha alversonii*) does not have a status designation with CDFW or USFWS but is a List 4.3 species, meaning plants that are of limited distribution - A watch list; but not very threatened in California (low degree/immediacy of threats or no threats known) (CNPS 2025). Two Alverson's Fox-tail Cacti were recorded 1.38 miles south-southeast (CMBC 2008). None was found on the subject property, within the survey area.

Alkali Mariposa-lily (*Calochortus striatus*) is not designated as a rare species by either USFWS or CDFW, is a BLM Sensitive species (CDFW 2025a), and is designated by the CNPS (2025) as a List 1B.2 plant, which means that it is considered rare, threatened, or endangered in California and elsewhere; and, specifically, fairly threatened in California (moderate degree/immediacy of threat). CDFW (2025a) describes the plant's habitat as chaparral, saltbush scrub, Mojavean creosote bush scrub, alkaline meadows, ephemeral washes, and seeps, between 230 feet (70 meters) and 5,250 feet (1,600 meters) elevation. Although no plants were detected during this survey, suitable habitat is present onsite. Surveys conducted during spring blooms may be requested by the City or CDFW to determine presence/absence.

Red-diamond Rattlesnake (*Crotalus ruber*) is designated as a California Species of Special Concern and has no federal status (CDFW 2025c). Habitat affinities include chaparral, woodland, grassland, desert areas from coastal San Diego County to the eastern slopes of the mountains, where they occur in rocky areas and dense vegetation. They need rodent burrows, cracks in rocks, and surface cover for refuge. The closest CNDDB record is located 3.62 miles to the north-northwest, observed 2002.

Pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*) is considered a California Species of Special Concern and has no federal status (CDFW 2025c). They are found in desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, and pinyon-juniper woodland. Preferred habitats are sandy, herbaceous areas, usually in association with rocks or coarse gravel (CDFW 2025a). CNDDB reports (CDFW 2025a), dating from 1931 to 1946 indicate two areas of species observations. The closest are approximately two miles to the south (1946) and 3.8 miles to the west-southwest (1931). There is insufficient life history and location information for CMBC to determine a likelihood of occurrence for this species to occur on

the subject property.

Jackass-clover (*Wislizenia refracta ssp. refracta*) is found in playas, desert dunes, Mojavean Desert scrub, Sonoran Desert scrub habitats, particularly in sandy washes, along roadsides, and in alkaline flats at elevations between 380 and 1,160 m (CDFW 2025a). There is one record in the CNDDB report, from 2002, about 1.69 miles south of the site. The species is an annual herb that blooms from April to November. It should have been detectable at the time of surveys but was not found. The species is considered absent from the subject property.

Burrowing owl is designated as a California Species of Special Concern by CDFW (2025c), as a Bird of Conservation Concern by the USFWS (2008), and is considered Sensitive by the BLM (CDFW 2025a). It is one of the focal species specifically sought during field surveys, particularly in adjacent areas, and is usually detected by distinctive feathers, zygodactyl (x-shaped) tracks, and whitewash (fecal material deposited away from burrows may be from other bird species). Although pellets and feathers are sufficiently distinctive that they may be identified away from burrows, it is one or more of these signs at sufficiently large burrows that are the most definitive means of determining burrowing owl use of a given site

In the case of the subject property, there was no evidence of burrowing owl. Burrowing owls do not create their own burrows; rather they find existing burrows, which they may slightly modify in order to occupy. Typical existing burrows used by burrowing owls include abandoned kit fox dens, both active and inactive tortoise burrows, deeper badger digs, and inactive California ground squirrel burrows. That no such burrows were found on-site may be one of the reasons no burrowing owl sign was found.

Burrowing owls have been observed or detected in the following areas: 1 mile to the west on 100 acres (CMBC 2004a), 1 mile to the west on 80 acres (CMBC 2004c), and three burrowing owls were observed on 0.78 acres to the west on 40 acres (CMBC 2004d).

Based on the field survey and habitat assessment, CMBC concludes that none of the following special status species reported from the region will be adversely affected by site development: Burrowing Owl, Cooper's hawk, Prairie Falcon, Loggerhead Shrike, Alverson's Foxtail Cactus, Alkali Mariposa Lily, Red-diamond Rattlesnake, Pallid San Diego Pocket Mouse, and Jackass Clover. As such, no adverse impacts have been identified and no mitigation measures are recommended.

Based on the absence of tortoise sign on-site and in adjacent areas, and available information reviewed for this habitat assessment, CMBC concludes that Agassiz's Desert tortoises are absent from the subject property. As such, no impacts are anticipated, and no mitigation measures are recommended.

Whereas USFWS survey protocols historically indicated that the results of a given survey were valid for the period of only one year (USFWS 2010 and 2018), according to the revised, 2019 USFWS pre-project survey protocol, "*If the survey data are more than a year old, we encourage project proponents to contact us at the earliest possible time to allow us to assess the specific circumstances under which the data were collected (e.g., time of year, drought/rainfall conditions, size and location of the site, etc.) and to discuss whether additional surveys would be appropriate. Spatial information can be provided in pdf and GIS formats*." At the time of this writing, the Palm Springs office of the USFWS would be the appropriate office to contact [(760) 322-2070] to determine if another survey should be performed prior to ground disturbance, if it does not occur before November 18, 2026. Regardless of survey results and conclusions given herein, tortoises are protected by applicable State and federal laws, including the California Endangered Species Act and Federal Endangered Species Act, respectively. As such, if a tortoise is found on-site at the time of construction, all activities likely to affect that animal(s) should cease and the City contacted to determine appropriate steps. Importantly, nothing given in this report, including recommended mitigation measures, is intended to authorize the incidental take of Agassiz's desert tortoises during site development. Such authorization must come from the appropriate regulatory agencies, including CDFW (i.e., authorization under section 2081 of the Fish and Game Code) and USFWS [i.e., authorization under section 10(a)(1)(B) of the Federal Endangered Species Act].

To ensure impacts to special status species are reduced to the greatest extent, the Project will be required to implement Mitigation Measure BIO-1 through BIO-4. Additionally, the Project will be required to adhere to any applicable City ordinance regarding the conservation of biological resources and species. In accordance with these standards and mitigation measures, the Project's development is not expected to pose a significant threat to the native and migratory species. As such, less than significant impacts will occur with the mitigation measures imposed.

For protected plants, the City will require a Desert Native Plant Assessment be prepared prior to site disturbance and it shall be in compliance with the California Native Plant Protection Act. Beavertail Cactus, Silver Cholla, Pencil Cholla, Smoke Tree, Catclaw Acacia, and honey mesquite are species found on-site that may be subject to pertinent development codes. Whereas honey mesquite is listed among the species that are protected at the County and State levels, the hummocks on which they occur are an even more important regional resource and likely to require mitigation from CDFW if they are impacted.

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests, including raptors and other migratory nongame birds (As listed under the Migratory Bird Treaty Act). Typically,

CDFW requires that vegetation not be removed from a project site between March 15 and September 15 to avoid impacts to nesting birds. If it is necessary to commence project construction between March 15 and September 15, a qualified biologist should survey all shrubs and structures within the project site for nesting birds, prior to project activities (including construction and/or site preparation).

Surveys should be conducted at the appropriate time of day during the breeding season, and surveys would end no more than three days prior to clearing. CDFW is typically notified in writing prior to the start of the surveys. Documentation of surveys and findings should be submitted to the CDFW within ten days of the last survey. If no nesting birds were observed project activities may begin. If an active bird nest is located, the plant in which it occurs should be left in place until the birds leave the nest. No construction is allowed near active bird nests of threatened or endangered species.

b) **Less Than Significant Impact.** Stream courses provide relatively important resources to animals and plants. In dry years, and particularly during prolonged drought, annual plants may only germinate in the vicinity of washes where the water table is relatively near the surface. Perennial shrubs adjacent to washes are often the only plants that produce flowers and fruit, which in turn are important to insects and the avian predators that feed on them. Shrubs also tend to be somewhat taller and denser alongside washes, which provides cover for medium and larger sized animals that may use them as travel corridors. Biodiversity is generally enhanced by washes, and there are often both annual and perennial plants that are either restricted to or mostly associated with wash margins. There are both anecdotal accounts and published literature on washes being important to tortoises, which use them as travel corridors and access to nearby annual forage. There are no major stream courses on-site; as such a less than significant impact will occur to riparian resources.

c) **No Impact.** Section 404 of the Clean Water Act, prohibits project developers from placing excavated (dredged) or fill material into surface water, without the submission of a water quality certification to ensure the discharge is in compliance with the State's water quality standard. Jurisdictional waters or the "waters of the United States" are defined as wetlands and non-aquatic habitats, such as streams, rivers, lakes, ponds, bays, and oceans that can otherwise be navigated water. There are no waters of the United States in the City. The CDFW has jurisdiction over "waters of the State," which include the bed and bank of streams, and in the high desert, of dry washes. There are no ponds, wetlands, riparian habitat or similar features on the site. According to the Delineation of Jurisdiction Waters report prepared by WSP (Appendix C), 1.01 acres and 6,468 linear feet of non-wetland ephemeral drainages, considered waters of the State occur on the Project site. The biologist overlaid these waters on the site plan, and found that no portion of the Project will impact these drainages, as the site has been designed to avoid them. No impact to jurisdictional waters will occur.

d) **Less Than Significant Impact with Mitigation.** According to the City's 2012 General Plan, the Joshua Tree-Twentynine Palms Connection is designated within and near the City. The connection includes ±300,000 acres, of which the majority is located outside the city limit. However, a portion of the City' western region including the Project site, is within a designated wildlife linkage area as shown in Twentynine Palms General Plan Exhibit CO-3.

Although the Project site is located within a designated wildlife corridor, the field survey concluded that the site sustains minimal biological resources and there is a moderate to low probability of special status species of occurring within the boundaries of the Project.

To ensure impacts to special status species are reduced to the greatest extent, the Project will be required to implement Mitigation Measure BIO-1 through BIO-5. The Project includes 110 acres of land to be designated Open Space, and preserved for conservation. This area, and the clustered nature of the Project development area, will preserve 72% of the wildlife habitat on the property. Additionally, the Project will be required to adhere to any applicable City ordinance regarding the conservation of biological resources and species. In accordance with these standards and mitigation measures, the Project's development is not expected to pose a significant threat to the native and migratory species occupying the wildlife linkage. As such, less than significant impacts will occur.

e-f) **No Impact.** The City of Twentynine Palms General Plan establishes goals and policies to ensure that natural resources including the pallid bat, pallid San Diego pocket mouse, and desert tortoise are protected.

Development of the proposed Project will occur within the City of Twentynine Palms and will follow mitigation measures specified in the project-specific biological report specifically relating to the species identified in the General Plan; therefore, it will have neither impact on the overlay districts nor any conflict with City or county regulations and plans. There is no Habitat Conservation Plan or Native Community Conservation Plan which applies to the site. In this regard, the Project will not conflict with any standards or regulations, and there are no impacts.

Mitigation Measures:

BIO-1 <u>Desert Tortoise</u>

Prior to the issuance of any ground disturbing permit and any ground disturbing activities occurring on the Project site, pre-construction clearance surveys consistent with the requirements of the USFW 20219, "Preparing For Any Action That May Occur Within The Range of the Mojave Desert Tortoise (Gopherus Agassizii)" shall be conducted by a qualified biologist. This clearance survey will be completed by a qualified desert tortoise

biologist(s) over the entire project footprint with spacing of 10-meter transects and will occur within 14-days of any vegetation removal or soil impacts. If a desert tortoise is found during the surveys, consultation with the appropriate regulatory agencies, including CFDW and USFW is necessary to secure an Incidental Take Permit (ITP) and determine the appropriate mitigation.

If a desert tortoise or its sign is found on-site during construction, all activities likely to affect the species must cease and the City, CDFW and USFWS must be contacted to determine appropriate steps. No take of the tortoise(s) may occur without an ITP.

BIO-2 Migratory Bird Treaty Act

If possible, the removal of vegetation and grading preparatory to construction shall occur outside the nesting season (February 1 to August 31). A nesting bird survey shall be performed by a qualified biologist no more than three days prior to construction activities. If no nests are found, construction may proceed. If active nests are found, a buffer zone of 500 feet for birds of prey and/or 300 feet for other birds will be put in place around the nest and work within the buffer shall be avoided until the young have fledged as determined by the qualified biologist. This buffer may be decreased at the discretion of the biological monitor as long as construction activities have no direct or indirect impact to nesting birds.

BIO-3 Construction Worker WEAP Program

Implementation of a Worker Environmental Awareness Program (WEAP) shall be required to educate the construction crew of potential special status species present on the project site. The WEAP shall be conducted within one week of the initiation of construction, and shall be repeated as new workers/trades come onto the site. A recording of the original WEAP can be used for subsequent training.

BIO-4 Plant Surveys

Prior to any ground disturbing activities, a qualified botanist shall conduct a Desert Native Plant Assessment with focused plant surveys that are consistent with the 2018 Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. The survey shall be conducted at the appropriate time of year and in a manner that maximizes the likelihood of locating special-status plants that may be present. If any special-status plant species is identified within the project site, the qualified botanist shall delineate a buffer around the plant(s) and impacts shall be fully avoided. If complete avoidance is not feasible, coordination with the CDFW is necessary to discuss specific mitigation measures which may be required for the individual species.

Monitoring:

BIO-A Prior to the issuance of any permit to allow ground disturbance on the site, the City will receive and file all technical surveys and permits in the project file.

Responsible Parties: Project biologist, Planning Department, City Engineer.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010) and Archaeological Resources Inventory Report for the Desert Knoll Project, San Bernardino County, California prepared by ECORP Consulting, Inc. dated January 2026.

Environmental Setting

The City is located in an area historically occupied by two Native American groups, the Serrano and the Chemehuevi. The Serrano's homeland was centered in the nearby San Bernardino Mountains but also included lowlands along both flanks of the mountain range. The Chemehuevi, a subgroup of the Southern Paiute, traditionally occupied the Mojave Desert east to the Colorado River. The Serrano settled mostly near where flowing water emerged from the mountains, while the Chemehuevi, with fewer people spread over a much wider area, cultivated, gathered, and hunted in the open deserts, but were also known for their agricultural practices. Members of each tribe gathered at important base camps or villages for annual ceremonies and tribal interaction with neighboring groups.

In the Twentynine Palms area, the Serrano and the Chemehuevi relied on the waters of a desert oasis located in the southeastern portion of the City. The Serrano first settled in the oasis and named it *Maara*, "the oasis in the mid-19th century.

While European contact may have occurred as early as 1771 or 1772, direct European influence on Serrano and Chemehuevi lifeways did not begin until the mission system expanded to the edge of Serrano territory in the 1810s. By the early 20th century, the majority of the Serrano and Chemehuevi population was incorporated into the reservation system. Today, most Serrano descendants live on the San Manuel and the Morongo Indian Reservations, while the Chemehuevi are divided among the Chemehuevi, the Colorado River, and the Morongo Reservations.

Non-Native settlement first occurred in the Twentynine Palms area by the late 1800s, when prospectors sought their fortunes in nearby gold camps. The first pioneer homesteaders came in 1910, and a small community started to grow. In 1952, the U.S. Defense Department established a marine base north of the oasis for glider training, now known as the U.S. Marine Corps Air Ground Combat Center. The City of Twentynine Palms was incorporated March 23, 1987.

In January 2026, ECORP Consulting, Inc. prepared an archaeological resources Inventory report for the proposed Project (Appendix C). The findings of the assessment are summarized below.

Discussion of Impacts

a) **No Impact.** Section 15064.5 of the CEQA Guidelines defines a historic resource as a resource that is: (1) listed in, or determined to be eligible for listing in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code); or (3) identified as significant in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code). Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register. The California Register automatically includes all properties listed in the National Register of Historic Places (National Register) and those formally determined to be eligible for listing in the National Register.

The Project site is currently vacant, and no historic structures occur on the property. ECORP conducted a records search for the Project area at the CHRIS South Central Coastal Information Center (SCCIC) located at California State University, Fullerton on November 20, 2025. The purpose of the records search is to determine the extent of previous surveys within a 1-mile radius of the proposed Project area, in addition to whether previously documented pre-contact or historic-period archaeological sites, architectural resources, or traditional cultural properties exist within this area. The records search also determined that 11 previously recorded pre-contact and historic-era cultural resources are located within 1 mile of the Project Area. Three are historic-era sites associated with residential development and transportation, and one is of unknown age.

ECORP reviewed the following historical references: Built Environment Resource Directory (BERD) for San Bernardino County (OHP 2022); the National Register Information System (National Park Service [NPS] 2022); Office of Historic Preservation, California Historical Landmarks (CHL; OHP 2022); California Points of Historical Interest (OHP 1992 and updates); Directory of Properties in the Historical Resources Inventory (OHP 1999); California Department of Transportation (Caltrans) Local Bridge Survey (Caltrans 2024); Caltrans State Bridge Survey (Caltrans 2022); and *Historic Spots in California* (Kyle 2002).

ECORP also reviewed other references, including an online property search using RealQuest and historic General Land Office (GLO) land patent records (BLM 2022). They reviewed the BLM GLO original survey map from July 23, 1856 as well as the 1955 and 1973 USGS Twentynine Palms 7.5-minute Quadrangles. Then, they reviewed historical aerial photographs taken in 1970, 2009, 2010, 2014, 2016, 2018, 2020, and 2022 for any indications of Project Area usage and built environment. ECORP conducted a search for a local historical registry, which did not reveal a local historical registry for the Twentynine Palms area. They contacted the Twentynine Palms Historical Society on November 21, 2025 to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of historical significance in the area.

A review of OHP's BERD for San Bernardino County (dated September 23, 2022) did not identify any listed resources within the Project Area. (OHP 2022). A review of the National Register Information System (NPS 2022) did not identify any eligible or listed properties within the Project Area. A review of the CHL list maintained by OHP (2023) did not identify any listed resources within the Project Area. *Historic Spots in California* (Kyle 2002) does not mention any historic spots near the Project Area.

A review of historic GLO land patent records from the BLM's patent information database (BLM 2022) identified one patent that includes the Project Area: Patent 1035883. This patent was issued to Edmund Nelson Bixby on April 7, 1930, granting him 320 acres of land under the authority of the May 20, 1862 Homestead Act (12 Stat. 392), which allowed large tracts of land to be obtained for farming and ranching purposes. Herbert Hoover signed this patent.

A review of the Caltrans Bridge Local and State Inventories (Caltrans 2024 and 2022, respectively) did not identify any historic bridges within or adjacent to the Project Area.

ECORP's records search and field survey did not identify any historic-period or pre-contact cultural resources within the Project area; therefore, no Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA would be affected by the proposed Project. No impacts to historic resources will occur.

b) Less Than Significant Impact with Mitigation. Section 15064.5(a)(3)(D) of the CEQA Guidelines define archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community.

The cultural resources study for the Project site included a historical/archaeological resources records search, historical research, and a field survey. ECORP conducted a records search for the Project area at the

CHRIS South Central Coastal Information Center (SCCIC) located at California State University, Fullerton on November 20, 2025. The purpose of the records search is to determine the extent of previous surveys within a 1-mile radius of the proposed Project area, in addition to whether previously documented pre-contact or historic-period archaeological sites, architectural resources, or traditional cultural properties exist within this area. The records search results indicate that 27 previous cultural resources investigations have been conducted within 1 mile of the Project area, covering approximately 20 percent of the records search radius. These studies revealed the presence of pre-contact sites, including lithic scatters and ceramic scatters. The previous studies were conducted between 1931 and 2015. None of the 27 studies included the Project area; however, two were adjacent.

In addition to the records search, ECORP contacted the California Native American Heritage Commission (NAHC) on November 10, 2025 to request a search of the Sacred Land File (SLF) for the Project area. This search determines whether California Native American tribes have recorded Sacred Lands in the vicinity of the Project area. The SLF is populated by members of the Native American community with knowledge about the locations of Tribal Cultural Resources (TCRs). In requesting a search of the SLF, ECORP solicited information from the Native American community regarding TCRs; however, the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies do not delegate government-to-government authority to any private entity to conduct tribal consultation. A search of the SLF by the NAHC did not reveal the presence of any Native American sacred sites within the vicinity of the Project Area. Appendix B provides a record of all related correspondence to date.

The *Handbook of North American Indians* (Bean and Smith 1978) does not identify any Native American villages near the Project area. ECORP determined by a review of geology and soils data there is a low potential to encounter buried pre-contact cultural deposits within the Project area. The absence of surface-level pre-contact cultural materials within the Project area supports this conclusion.

The City contacted 28 Tribal representatives on April 14, 2026 as part of the AB 52 consultation process described in Section XVIII (Tribal Cultural Resources) of this Initial Study. The Augustine Band of Cahuilla Indians responded on April 27, 2026 that they were not aware of any specific cultural resources within the Project area that would affect the proposed development and therefore, did not wish to initiate a consultation process. The Yuhaaviatam of San Manuel Nation (YSMN) requested additional information on April 27, 2026. The City provided said information on April 29, 2026. YSMN on May 11, 2026 requested that language be made part of the project/permit/plan conditions. Their language is included as Mitigation Measures CUL-1 for a Monitoring and Treatment Plan, CUL-2 for Archaeological Monitoring, CUL-3 for

a Worker Environmental Awareness Program, CUL-4 for Inadvertent Discoveries of Human Remains and under the Tribal Cultural Resource section XVIII: TCR-1 for Tribal Monitoring and TCR-2 for Treat of Cultural Resources During Project Implementation. With implementation of mitigation measures, potential impacts to archaeological resources will be reduced to less than significant levels.

c) Less Than Significant Impact with Mitigation. California law requires that if human remains are identified during earth moving activities, all activity stop, that the coroner be notified to determine the nature of the remains and whether Native American consultation is needed.

No cemeteries or human remains are known to occur onsite. It is unlikely that human remains will be uncovered during Project development. However, should human remains be uncovered, California law requires that all activity cease and the coroner be notified to determine the nature of the remains and whether Native American consultation is needed. This requirement of law assures that there will be no impact to cemeteries or human remains. CUL-4 will be applied to handle Inadvertent Discoveries of Human Remains. With implementation of mitigation measures, potential impacts to human remains will be reduced to a less than significant level.

Mitigation Measures:

CUL-1 <u>Monitoring and Treatment Plan</u>

A Monitoring and Treatment Plan that is reflective of the project mitigation ("Cultural Resources" and "Tribal Cultural Resources") shall be completed by the archaeologist and submitted to the City of Twentynine Palms for dissemination to the Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN, also known as San Manuel Band of Mission Indians). Once all parties review and approve the plan, it shall be adopted by the City – the plan must be adopted prior to permitting for the project. Any and all findings will be subject to the protocol detailed within the Monitoring and Treatment Plan.

CUL-2 <u>Archaeological Monitoring</u>

Due to the heightened cultural sensitivity of the proposed Project area, an archaeological monitor with at least 3 years of regional experience in archaeology shall be present for all ground-disturbing activities that occur within the proposed Project area (which includes, but is not limited to, tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, compaction, fence/gate removal and installation, drainage and irrigation removal and installation, hardscape installation [benches, signage, boulders, walls, seat walls, fountains, etc.], and archaeological work). A sufficient number of archaeological monitors shall be present each work day to ensure that simultaneously occurring ground disturbing activities receive thorough levels of monitoring coverage.

CUL-3 Worker Environmental Awareness Program

Prior to project initiation, a qualified archaeologist should be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training should be conducted by an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology. Tribal representatives from the Consulting Tribes, such as Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN, also known as San Manuel Band of Mission Indians) will be allowed to attend and/or participate in the WEAP training should they elect to and will be given ten days' notice prior to the training. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, and the proper protocol for treatment of the materials in the event of a find.

CUL-4 Inadvertent Discoveries of Human Remains

If human remains are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Monitoring:

CUL-A Prior to the issuance of any permit to allow ground disturbance on the site, the City will receive and file all technical plans, agreements and programs in the project file.

Responsible Parties: Project archaeologist, Planning Department, City Engineer.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
VI. ENERGY -- Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Source: Twentynine Palms General Plan (2012).

Environmental Setting

Nuclear energy, fossil fuels (e.g. oil, coal and natural gas) and renewable sources (e.g. wind, solar, geothermal and hydropower) are various sources of energy. The electrical energy to the City is provided by Southern California Edison (SCE). Natural gas service is provided to the City by Southern California Gas Company (SoCalGas). Natural gas is mainly utilized for water heaters and heating of homes, as well as a broad range of commercial and industrial equipment. In areas where natural gas is not available, propane gas, stored in on-property tanks, is also utilized. Both SCE and SoCalGas offer various programs and incentives for all users to help reduce energy consumption.

In 2002, California established a Renewable Portfolio Standard (RPS) that requires a retail seller of electricity to include in its resource portfolio a certain amount of electricity from renewable energy sources, such as wind, geothermal, small hydro, and solar energy. Senate Bill (SB) 100 was signed into law in September 2018, which requires utilities to procure 60 percent of their electricity from renewables by 2030 and sets as a State policy that State agencies and end-use retail customers receive 100 percent of energy from renewable and zero- carbon resources by 2045. To ensure retail sellers meet their RPS requirement, the California Public Utilities Commission (CPUC) is responsible for establishing enforcement procedures and imposing penalties for non-compliance with the program (CPUC, 2018).

The California Code of Regulations Title 24, California's energy efficiency standards for residential and non-residential buildings, was established by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and took effect on January 1, 2020. Under the 2019 standards, homes will use about 53 percent less energy and nonresidential buildings will use about 30 percent less energy than buildings under the 2016 Title 24 standards.

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The most recent update to the CALGreen Code was adopted in 2019 and went into effect January 1, 2020. The Project will follow the 2025 Building Code.

The Project will be utilizing electricity as a primary energy source with propane being available for heating. SCE has existing underground utilities in the Project vicinity.

Discussion of Impacts

a), b) Less Than Significant Impact. The proposed Project will consume energy during both construction and long-term operation. During construction, energy demand will come from the operation of construction machinery and equipment, manufacturing of construction materials, delivery of building materials, hauling of construction debris, and commuting of workers to and from the Project site. The Project consists of 137 residential lots and the construction of 137 single-family residences and has no characteristics that would result in unusually high use of energy for construction. Construction practices would be subject to current MDAQMD rules and regulations, such as source-specific standards for engines and limits on equipment idling duration. The Project would also adhere to state Low Carbon Fuel Standards for construction equipment and heavy-duty vehicle efficiency standards. These standards would reduce fuel consumption, help maximize fuel efficiency, and reduce pollutant emissions.

Long-term operational energy demand will be generated by Project lighting, heating/ventilation/air conditioning (HVAC) systems, and kitchen appliances. Energy would be consumed during the operation of residential units, as well as landscape irrigation, the transport and conveyance of water, and solid waste hauling and disposal. The Project will be constructed in accordance with the state Building Code, Green Building Code, and Energy Code in effect at the time that development occurs, to ensure the most efficient building technologies are used, which will benefit overall building operations, ensure energy efficiency, and reduce wasteful and unnecessary consumption of energy resources. Current energy code requirements include the use of solar energy for residential projects. The Project will be required to comply with these standards.

The Project will directly increase the population by 345 persons based on US Census information that identifies a 2.52 person per household for the City of Twentynine Palms. It will generate vehicle trips and miles traveled (VMT) and long-term fuel demand. According to the Project-specific traffic impact analysis, the Project is estimated to generate 1,245 vehicle trips per day (see Section XVII, Transportation). The Environmental Protection Agency (EPA) and California Air Resources Board (CARB) set forth vehicle fuel efficiency standards to reduce vehicle emissions. Although the Project will increase vehicle trips, it will not interfere with increased fuel efficiency standards or result in wasteful, inefficient, or unnecessary consumption of transportation energy resources during operation.

SCE engages in renewable power generation and procurement, administers a variety of energy efficiency programs, and encourages rooftop solar energy. According to the Project-specific CalEEMod analysis (Appendix A), at buildout, the Project is projected to consume approximately 1,042,518 kWh of electricity per year. The Project will use electricity as its primary energy source. Actual consumption will be offset by energy-efficient appliances and future solar

systems. The Project will be required to comply with solar energy requirements of the 2025 California Building Code and will not interfere with any state or local plan that promotes renewable energy or energy efficiency.

As proposed and in compliance with existing regulatory requirements, the proposed Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during Project operation. The proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the proposed Project would result in a less than significant impact.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
VII. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to 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?				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
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?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems			X	

where sewers are not available for the disposal of waste water?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); Geotechnical Report APN 621-231-010 & 011, Twentynine Palms, California prepared by Landmark Consultants, Inc. dated August 2005; Geotechnical Update, Desert Knoll Residential Development, Tentative Tract No. 17168, Phase 3 and 4, Twentynine Palms, California prepared by Sladden Engineering dated November 3, 2025; and Paleontological Assessment Memorandum for the Desert Knoll Project, San Bernardino County, California prepared by ECORP Consulting, Inc. (ECORP) dated April 20, 2026.

Environmental Setting

The proposed Project area is located in the Morongo Basin on the southern edge of the Mojave Desert, northeast of the Little San Bernardino Mountains and northwest of the Pinto Mountain. Neighboring mountains are composed of granitic and metamorphic rock of Mesozoic age. The mountains to the south are important since they slope and drain to the north. Thus, all the onsite alluvial sediment is derived from the southern mountains (Schmidtling 2023). Dibblee has discussed the Project area as composed of older Quaternary alluvial sediments with a smaller component made of recent Quaternary alluvium (Dibblee 1968). Granitic and Metamorphic rocks are void of fossils and therefore will not be discussed. Furthermore, the Quaternary deposits are what will be encountered during ground disturbance as they will be found on the surface or near the surface. Surficial sediments include unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Figure 2). The thickness may be as much as 100 feet, grading down into Quaternary older alluvium (Qoa) located more along the western portion of the Project. These surficial deposits are interpreted as Holocene or Recent. Older sediments consist of weakly consolidated alluvial deposits that may be as thick as 1000 feet or more. These older alluvial deposits consist of light gray, poorly bedded to non-bedded, fine to coarse arkosic sand and minor mixtures of pebble-cobble gravel. Older gravel and sand consist of mostly light gray, poorly bedded gravel composed of sub-rounded cobbles and pebbles in matrix of arkosic sand (Dibblee 1968). Older surficial sediments are interpreted as Pleistocene and possibly in part Tertiary in age.

The City of Twentynine Palms, like most of southern California, is in a seismically active region. The Mesquite Lake fault and the Pinto Mountain fault are two major active faults within the City capable of inducing significant seismic hazards. According to the City's 2012 General Plan Safety Element, the City is vulnerable to seismic hazards including liquefaction, slope failure, settlement, soil collapse, and soil erosion.

Twentynine Palms is located in the Mojave Desert region of the California high desert. The Mojave Desert is bordered on the southwest by the San Andreas Fault and the Transverse Ranges, on the east by the Colorado River and on the north by the Garlock Fault, the Tehachapi Mountains and the Basin Ranges.

The Mojave area contains Paleozoic and lower Mesozoic rocks. Jurassic and Cretaceous

granitic rocks of the Nevadan batholith are widespread throughout the region's mountain blocks. Valleys between the mountain blocks are in-filled with Quaternary sediments. The region is dominated by broad alleviated basins that are mostly aggrading surfaces receiving nonmarine continental deposits from adjacent uplands. Tectonic activity continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of seismicity. Faults are typically encountered along the valley-mountain transition.

The region is susceptible to a range of geologic hazards, including ground rupture, major ground shaking, slope instability, and collapsible and expansive soils.

A site-specific geotechnical report was prepared by Landmark Consultants, Inc. and an update by Sladden Engineering (Appendix D) to assess and evaluate the Project's susceptibility to local geological hazards. A Paleontological Assessment Memorandum assesses the impacts to paleontological resources (Appendix E). The following discussion is based on the findings of the reports.

Discussion of Impacts

a) i) **No Impact.** The project site does not lie within a State of California, Alquist-Priolo Earthquake Fault Zone. Surface fault rupture is considered to be unlikely at the project site because of the well-delineated fault lines through the Mojave Desert region as shown on USGS and CDMG maps. However, because of the high tectonic activity and deep alluvium of the region, we cannot preclude the potential for surface rupture on undiscovered or new faults that may underlie the site. No impact would occur.

ii) **Less Than Significant Impact**. The Project site is located in the seismically active Mojave Desert region of southern California and is considered likely to be subjected to moderate to strong ground motion from earthquakes in the region. The proposed site structures should be designed in accordance with the California Building Code for near source factors derived from a "Design Basis Earthquake" (DBE). The DBE is defined as the motion having a 10 percent probability of being exceeded in 50 years. Engineered design and earthquake-resistant construction are the common solutions to increase safety and development of seismic areas. Designs should comply with the latest edition of the CBC for Seismic Zone 4 using the seismic coefficients given in Section 3.4 of the Geotechnical Report.

iii) **No Impact**. The Project site is not located in an area identified in the General Plan as susceptible to liquefaction. Liquefaction is unlikely to be a potential hazard at the site since the groundwater is believed to be deeper than 50 feet (the maximum depth that liquefaction is known to occur). Groundwater was not encountered in the trenches during the time of exploration, but is believed to be deeper than 100 feet below ground surface at this site. There is uncertainty in the accuracy of short-term water level measurements, particularly in fine-grained soil. Groundwater levels may fluctuate with precipitation, irrigation of adjacent properties, drainage, and site grading. The groundwater level noted should not be interpreted to represent an accurate or permanent condition. No impact is anticipated to occur.

iv) **No Impact.** The hazard of landsliding is unlikely due to the regional planar topography. No ancient landslides are shown on geologic maps of the region and no indications of landslides were observed during our site investigation. No impact would occur.

b) **Less Than Significant Impact.** According to the geotechnical report, the site is located within an area determined to be outside the 0.2% annual risk floodplain. Additionally, no signs of flooding or erosion were observed during the field survey. During construction, however, exposed soils will be subject to erosion from both wind and water should a storm occur. The Project will be required to prepare a dust management plan, consistent with the requirements of the MDAQMD to address wind erosion. The standards and requirements of that plan assure that wind erosion is managed through site watering, silt fencing and other measures prescribed by MDAQMD. In addition, the Project will be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) to control water erosion, and a WQMP, which will include Best Management Practices (BMP) such as bio-swales, sandbags and other means. As a result of these standard requirements, impacts associated with soil erosion will be less than significant.

c) **Less Than Significant Impact.** In arid climatic regions, granular soils have a potential to collapse upon wetting. This collapse (hydroconsolidation) phenomenon is the result of the lubrication of soluble cements (carbonates) in the soil matrix: causing the soil to densify from its loose configuration during deposition. A collapse potential test indicated a slight risk of collapse upon inundation indicating at the Project site. Therefore, building foundations are not required to include provisions for mitigating the hydroconsolidation caused by soil saturation from landscape irrigation or broken utility lines. The site does not lie near any large bodies of water, so the threat of tsunami, seiches, or other seismically-induced flooding is unlikely. The northeastern portion of the project site is located within a Federal Emergency Management Agency (FEMA) I 00-year and 500-year flood zone. As a result of standard requirements, impacts associated with soil collapse will be less than significant.

d) **Less Than Significant Impact.** Based on results from the laboratory test conducted by the geotechnical report, the alluvial materials underlying the site are considered to have a negligible expansive potential because they consist of sandy soils not subject to expansion. No expansive soil was found on-site. No impacts from expansive soil are anticipated. As a result of standard requirements, impacts associated with soil expansiveness will be less than significant.

e) **Less Than Significant Impact.** Twentynine Palms does not provide commercial wastewater services. All development, including the Project, is required to include a private septic system or on-site treatment plant to fulfill wastewater services. In this case, the Project proposes a treatment plant (Lot B). The Project will be required to submit plans for the plant to the Regional

Water Quality Control Board, and secure permits for the plant and its maintenance. These maintenance processes will assure that the Project does not contaminate local soils via its wastewater treatment plant. Impacts will be less than significant.

f) **Less Than Significant Impact.** Most professional paleontologists in California adhere to the Society of Vertebrate Paleontology (SVP 2010) guidelines to determine the mitigation protocols. These guidelines are used to assess the paleontological resource potential of the underlying geologic units. The potential of the geologic unit(s) can be assigned to one of four categories defined by the SVP (SVP 2010). These categories include high, undetermined, low, and no potential. According to the paleontological sensitivity outlined by the Society of Vertebrate Paleontology (2010), both recent artificial fill and young Holocene-age sediments (10,000 years old to present) have low sensitivities to produce fossils.

ECORP conducted a paleontological record search through the SBCM, located in Redlands, California. The SBCM did not have any records of previous finds recorded directly within the proposed Project site; however, four localities exist within 1 mile of the Project site's perimeter. These localities, SBCM 1.86.9 and SBCM 1.86.11 – 13, are 0.73 – 1.0 miles east of the Project Site on Campbell Hill. All occur in units of Qoa and Quaternary older gravel, including grey sandstone, tilted lacustrine sediments, and fluvial sand deposits below a calcareous sandstone bed. *Equus* sp. (extinct horse) bones were found in these localities, all disassociated and most being surface collected as float.

In addition to the record search results, ECORP conducted reviews of published and unpublished literature. Schmidtling conducted a paleontological resources assessment for the Cactus Club Hotel Project approximately 10 miles west of the City of Twentynine Palms (Schmidtling 2023). A record search conducted through the SBCM resulted in no known paleontological localities within the Project area. The geologic units within the Project Area are mapped as Holocene-age alluvial deposits similar to the surficial deposits discussed for the Project area.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 also applies to paleontological resources. Due to the presence of Holocene-age alluvium sediments in the Project area and therefore having low sensitivity to produce fossils, the potential of the proposed Project to impact significant paleontological resources is low. Therefore, no paleontological monitoring during ground-disturbing activities associated with the Project is recommended. If an inadvertent discovery is made during earth disturbing activities, all work in that area must be halted or diverted until a qualified paleontologist can evaluate the scientific significance of the find.

Mitigation Measures: None.

Monitoring: None.

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

Sources: City of Twentynine Palm General Plan; San Bernardino County Regional Greenhouse Gas Reduction Plan (March 2021); MDAQMD CEQA and Federal Conformity Guidelines; project materials; Tentative Tract Map 17168 Phases 3 to 8 Greenhouse Gas Analysis prepared by Urban Crossroads dated January 20, 2026.

Environmental Setting

Air quality has become an increasing concern because of human health issues, but also because greenhouse gas emissions are contributing to global warming and climate change. The primary contributor to greenhouse gas emissions is the burning of fossil fuels through the use of automobiles, power and heat generators, and industrial processes.

The principal greenhouse gases (GHGs) include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and water vapor (H_2O), which is generated by both mobile and stationary sources, including vehicles, electricity and natural gas consumption, and emissions associated with water pumping and application of fertilizers.

The State of California has taken a leading role to curb GHG emissions and has developed laws and regulations to reduce these emissions. State legislation and regulations call for better integrated land use planning and curtailing energy production away from nonrenewable sources and toward new renewable sources, such as solar and wind. California SB 375 in part implements greenhouse gas reduction targets set forth in AB 32 and encourages regional land use planning to reduce vehicle miles traveled; it also requires jurisdictions to adopt a sustainable communities strategy. The California Air Resources Board continues to draft regulations to implement the Scoping Plan.

State law mandated that all cities decrease their GHG emissions to 1990 levels by

the year 2020. Executive Order B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in Executive Order S-3-05.

The City does not have a standalone climate action plan. The County of San Bernardino adopted a GHG Emissions Reduction Plan in September 2011. The Reduction Plan contains further guidance on the County of San Bernardino's GHG Inventory reduction goals, policies, guidelines, and implementation programs. The purpose of the Reduction Plan is to provide guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the County of San Bernardino (43). The Reduction Plan provided the GHG emissions inventory for the year 2007, and target for reducing GHG emissions 15% below 2007 levels by 2020. The County has implemented strategies to reduce its GHG emissions identified in the 2011 Reduction Plan, which has helped the County meet its 2020 GHG reduction targets.

In September 2021, the County published the County of San Bernardino's GHG Emissions Reduction Plan Update (Reduction Plan Update) which set more ambitious targets, aligning with state regulations that require a 40% reduction in GHG emissions below 1990 levels by 2030. The update introduced enhanced strategies for renewable energy, energy efficiency, and transportation improvements while also emphasizing climate resilience and adaptation. It ensured consistency with state and regional goals, increased public engagement, and established robust monitoring and reporting mechanisms to track progress. This comprehensive update reflects a strengthened commitment to addressing climate change through more rigorous goals and effective implementation measures.

As part of the Reduction Plan Update, the County of San Bernardino published a GHG Development Review Process that specifies a two-step approach in quantifying GHG emissions. First, a screening threshold of 3,000 MTCO2e/yr is used to determine if additional analysis is required. Projects that exceed the 3,000 MTCO2e/yr are required to either achieve a minimum 100 points per the Screening Tables or a 31% reduction over 2007 emissions levels. Consistent with CEQA guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

According to the MDAQMD CEQA and Federal Conformity Guidelines, the annual threshold for greenhouse gases is 100,000 tons CO_2e annually and 548,000 pounds daily. The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.35 was used to quantify Project air quality emission projections, including greenhouse gas emissions (Appendix F).

Discussion of Impacts

a) Less Than Significant Impact. The Project will generate negligible GHG emissions during operations, but will generate GHG emissions during

construction. Construction equipment and worker trips will result in GHG emissions.

Construction

The proposed Project is anticipated to begin construction in June 2026 and would be implemented in six (6) construction phases. It is anticipated that approximately 29 dwelling units would be constructed per phase with each phase having an approximately duration of eight (8) months. Phase 1 is expected to commence in June 2026, while phases 5 and 6 would occur with overlapping construction activities and are anticipated to be completed in April 2029. This construction schedule reflects the phased development of the Project. Overall development could take up to three (3) years for the Project to be completely built out.

For purposes of analysis, however, construction is conservatively assumed to begin in June 2026 and would last through December 2027. This timeframe suggests a more rapid and intense construction period than is anticipated to occur, likely resulting in higher emissions over a short period of time for analytical purposes. Given the probable extended timeline discussed above, this assumption overestimates the intensity of air quality impacts. The construction schedule utilized in the analysis represents a "conservative" analysis scenario. That is, should construction occur any time after the assumed dates, construction emissions would be reduced when compared to the levels presented here. This is due to the decrease in emission factors for construction equipment over time, and increasing stringency in emissions regulations. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per the *CEQA Guidelines*.

For construction phase emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the MDAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3.

TABLE 3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	CO_2T	CH_4	N_2O	R	Total CO_2e
2027	287.00	0.01	< 0.005	0.01	288.00
2028	255.80	<0.01	<0.01	<0.01	256.90
Total	208.00	0.01	< 0.005	0.02	210.00
Amortized	750.80	0.02	0.00	0.03	754.90

Operational

The estimated Project-related GHG emissions are summarized in Table 4. Detailed operation model outputs for the Project are presented in Appendix F. As shown in Table 4, construction and operation of the Project would generate approximately 2,849.95 MTCO2e/yr.

TABLE 4: PROJECT GHG EMISSIONS

Source	Emissions (MT/yr)				
	CO_2T	CH_4	N_2O	R	Total CO_2e
Annual construction emissions amortized over 30 years	45.40	1.67E-03	6.67E-04	7.00E-03	45.63
Mobile	2,184.00	0.08	0.10	3.20	2,219.00
Area	109.00	0.00	0.00	0.00	109.00
Energy	391.00	0.04	0.00	0.00	393.00
Water	36.00	0.19	0.00	0.00	42.00
Waste	12.00	1.20	0.00	0.00	41.00
Refrigeration	0.00	0.00	0.00	0.32	0.32
Total CO_2e (All Sources)	2,849.95				

As previously stated, since the Project is located within the County of San Bernardino portion of the MDAQMD and since the MDAQMD threshold for GHG emissions has not been formally adopted, Project impacts will be assessed against GHG thresholds from both the MDAQMD and the County of San Bernardino.
As previously shown in Table 4, the Project will result in approximately 2,849.95 MTCO2e/yr, which would not exceed the MDAQMD's screening threshold of 90,718.5 MTCO2e/yr or the County's screening threshold of 3,000 MTCO2e/yr. This would be considered a less than significant impact.

b) Less Than Significant Impact. Pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. As such, the Project's consistency with the 2022 Scoping Plan is discussed below. It should be noted that the Project's consistency with the 2022 Scoping Plan also satisfies consistency with AB 32 since the 2022 Scoping Plan is based on the overall targets established by AB 32 and SB 32. Consistency with the 2008 and 2017 Scoping Plan is not necessary, since both of these plans have been superseded by the 2022 Scoping Plan.

Overall, the proposed Project would be consistent with local, regional and statewide goals and policies aimed at reducing the generation of GHGs. The Project would be required to comply with Title 24 Building Energy Efficiency Standards (Title 24, Part 6, of the California Code of Regulations), which provide

minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage and related GHG emissions. The proposed Project's GHG emissions would not constitute a cumulatively considerable contribution, or conflict with an applicable plan, policy, or regulation for the purposes of reducing the emissions of greenhouse gasses. Impacts would be less than significant.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
IX. HAZARDS AND HAZARDOUS MATERIALS --Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010) and Phase I Environmental Site Assessment prepared by NV5 dated May 5, 2026.

Environmental Setting

Products as diverse as gasoline, paint, solvents, household cleaning products, refrigerants, and radioactive substances are categorized as hazardous materials. The proper management of hazardous materials is a common concern for all communities. Beginning in the 1970s, governments at the federal, state, and local levels became increasingly concerned about the effects of hazardous materials on human health and the environment. Numerous laws and regulations were developed to investigate and mitigate these effects. As a result, the storage, use, generation, transport, and disposal of hazardous materials are highly regulated by federal, state, and local laws and regulations.

The proper management of hazardous materials is a common concern for all communities. Products as diverse as gasoline, paint, solvents, household cleaning products, refrigerants, and radioactive substances are categorized as hazardous materials. The storage, use, generation, transport, and disposal of hazardous materials are highly regulated by federal, state, and local laws and regulations.

The San Bernardino County Fire Department's Hazardous Materials Division oversees and regulates businesses in the City that transport, store or use hazardous materials in larger quantities. The Department of Toxic Substances Control (DTSC) lists 16 large quantity users in the City, primarily businesses located on or near Highway 62. Sites associated with cleanup of hazardous materials in and near the City have been, and currently are those associated with the military installations at the Marine Corps base, north of the City.

Adjoining properties include undeveloped land and a utility structure to the north; undeveloped land to the east (across Utah Trail); Twentynine Palms Junior High School, Twentynine Palms Elementary School, undeveloped land, and dwellings to the south; and dwellings to the west (across Desert Knoll Ave). The site is predominately vacant with the exception of a fenced enclosure containing a small shed, an above ground retention basin, and related equipment is located near the northwestern boundary of the Project area. No chemical or hazardous waste disposal has been documented on the site. There are no known underground tanks or buried materials on the site.

Discussion of Impacts

a, b) Less Than Significant Impact. The construction phase of the Project would involve the use of heavy equipment and vehicles, which will use limited quantities of oil and fuels and other potentially flammable substances. During construction, equipment could require refueling and minor maintenance on site that could lead to fuel and oil spills. The contractor will be required to identify

a staging area for storing materials and conducting maintenance, and will be subject to State laws regarding the handling, storage, and use of hazardous materials during construction.

During long-term operation, the Project will involve the routine transport, use, and storage of hazardous materials such as cleaning and degreasing solvents, fertilizers, pesticides, pool maintenance products and similar materials. These will occur in limited quantities and will not require a hazardous material handling/storage permit. The manner in which commercial chemicals are stored and handled is highly regulated by the Fire Department, County and State. These standard requirements will assure that impacts associated with commercial quantities of chemicals will be less than significant.

In addition, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented for the Project. The SWPPP would describe any hazardous materials required for the Project and would include best management practices for prevention of accidental spills as well as cleanup requirements for any accidental spills or releases of hazardous materials into storm flows.

Therefore, compliance with applicable laws and regulations would minimize the potential for the Project to create a significant hazard to the public or the environment, and impacts would be less than significant.

c) **No Impact.** There are two schools within ¼ mile of the Project site. The nearest existing schools are the Twentynine Palms Elementary School and the Twentynine Palms Junior High School immediate adjacent to the Project's southern property line. The Project will not store or transport significant amounts of hazardous materials. Therefore, the proposed Project would not create a significant hazard to the public or the environment. No impact will occur. No environmentally sensitive activities are conducted at the subject property. The site consists of undeveloped desert land with native vegetation and unpaved dirt roads/trails. No permanent structures are present at the subject property; however, a fenced utility structure is located along the northern boundary and appears to be partially located on the adjoining area to the north. Vegetation consists primarily of native shrubs and scattered small trees typical of the surrounding desert landscape.

d) **No Impact.** A search of the California Department of Toxic Substances Control (DTSC) EnviroStor database and the State Water Resources Control Board (SWRCB) GeoTracker database, the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and there are no open cases of hazardous waste violations. Therefore, the Project is not on a parcel included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, no impact will occur.

e) **No Impact.** The subject property is not within the boundaries of an airport land use plan or within 2 miles of a public or private airstrip. The site is approximately 7 miles west of the Twentynine Palms Airport. Therefore, the Project will not result in a safety hazard or excessive noise for people in the Project area. No impact will occur.

f) **No Impact**. The proposed Project is required to adhere to the standards set forth in the Uniform Fire Code, which identifies the design standards for emergency access during both the Project's construction and operational phases. A traffic control plan will be developed prior to the initiation of any construction activities to minimize disruption to existing traffic flow conditions along emergency access routes. Adequate local and emergency access to adjacent uses is required to be provided at all times. The traffic control plan shall also be reviewed and approved by the Fire and Police departments so that construction does not create any hazards or interfere with any emergency response or evacuation plans. Adherence to City requirements regarding traffic control plans will ensure potential impacts to emergency access during construction will be less than significant.

Once operational, the proposed Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. The proposed Project would not impair implementation of or physically interfere with an adopted Emergency Response Plan or Emergency Evacuation Plan, because it will not modify any existing evacuation routes, and will improve Desert Knoll Avenue and Utah Trail and will extend Samarkand Drive through the northern portion of the map to connect to Utah Trail to carry emergency vehicles. Therefore, the Project would have no impact on evacuation planning.

g) **No Impact.** The General Plan identifies the Project site as being in a Local Responsibility Area and a Moderate Fire Hazard Severity Zone (FHSZ). The subject property is not located in or near a state responsibility area or lands classified as a Very High Fire Hazard Severity Zone as recommended by the State Fire Marshall in 2025. The site is sparsely vegetated, has sandy soils and provides no substantial fire fuel source. The Project will not expose people or structures to a significant risk associated with wildfire hazards. No impact will occur.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;			X	
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			X	
(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			X	
(iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); Twentynine Palms Water District (TPWD) 2025 Urban Water Management Plan adopted May 27, 2026 by Resolution 26-06 prepared by Kennedy Jenks and Final Drainage Study for Tentative Tract Map No. 20866 Desert Knoll APN: 0621-231-11 and 0621-231-14, Twentynine Palms, California, County of San Bernardino prepared by NV5 dated June 14, 2026.

Environmental Setting

Domestic Water

Twentynine Palms Water District (TPWD) manages and distributes the local ground water supply in the City of Twentynine Palms and portions of the surrounding unincorporated areas of San Bernardino County. The District's water service area spans 87 square miles, maintaining 361 miles of pipeline and 17 million gallons of

water storage capacity. The District's water supply source is 100 percent local groundwater extracted from four sub- basins south of the Pinto Mountain Fault, which are fed by rainfall in the Pinto Mountains.

As an urban water supplier, TPWD is mandated to prepare an Urban Water Management Plan (UWMP) per the California Water Code, undertaking water supply planning over a 20-year period in five year increments by analyzing existing and projected water supply opportunities including recycled water for existing and future demands, in normal, single- dry and multiple-dry years, and implementing conservation and efficient use of urban water supplies.

State Water Code Section 10910(a) states that any city or county that determines that a "Project," as defined in Water Code Section 10912, shall prepare a water supply assessment. The threshold defined by the Water Code is 500 dwelling units, 500,000 square feet of commercial development, or any project with a water demand equivalent to 500 dwelling units. The project water demand is analyzed below, and does not require the preparation of a water supply assessment because it does not meet the Water Code threshold of 500 equivalent dwelling units.

Wastewater Treatment

The City, including the Project area, does not have a sanitary sewer system and currently operates with septic tanks and project-specific treatment, or "package" plants. The Project proposes an on-site package treatment plant.

Flood Control/Drainages

The City, including the Project site, is located in the southern Mojave Desert. With an average precipitation of 5 inches per year, the area sees infrequent thunderstorms that can cause flooding in the City.

Twentynine Palms Channel, the only major drainage structure in the City, was designed and constructed to protect the central business district and downtown area. The natural major drainages of Fortynine Palms Canyon, Twentynine Palms Wash, Indian Cove and Dog Wash, as well as small unnamed drainages in the Pinto Mountains can carry flash floods and impact downstream development in the City.

The San Bernardino County Flood Control District (SBFCD) is responsible for managing regional drainage within and in the vicinity of Twentynine Palms. The City works with SBFCD to manage local drainages in the City, which are divided between well-defined drainage courses (some have been channelized) and areas of wide sheet flow. Development that may alter the direction of flow onsite are conditioned per standard San Bernardino County practices to maintain the existing site drainage patterns at inlets and outlets.

National Pollution Discharge Elimination System (NPDES) to protect surface waters from pollution. Development projects must retain the 100-year storm flow onsite.

Water Quality

Water quality is regulated by multiple agencies, depending on the source. The TPWD implements the standards of the Regional Water Quality Control Board (RWQCB) in its distribution of domestic water.

Surface water quality in the region is largely under the influence of land uses that affect runoff, such as residential and commercial uses. Runoff from stormwater can transport pollutants that collect on the ground surface and affect water quality of receiving streams, rivers, and channels.

Description of Impact

a) **Less Than Significant Impact.** All water providers are required to comply with Regional Water Quality Control Board (RWQCB) standards for the protection of water quality and local aquifers. The City and RWQCB impose requirements for surface water protection, including the preparation of site-specific Water Quality Management Plans (WQMP) for surface waters.

Effluent from the water treatment system will be contained in closed systems, and they are not expected to degrade groundwater quality. The RWQCB Colorado River Region 7 typically requires the effluent to meet specific concentration levels for project parameters, which assures that the treatment plant operates properly to remove necessary pollutants and protects the surface waters and groundwater that receive the effluent. The RWQCB Colorado River Region 7 Board will permit the WWTP and develop Waste Discharge Requirements (WDR) with specific effluent concentrations for materials of concern. It will also be responsible for ongoing inspections, reporting and conformance checks.

To minimize the pollutant load associated with urban runoff, the Project will also be required to comply with NPDES regulations, including preparation of a Storm Water Pollution Prevention Plan (SWPPP). Adherence to conditions of approval and local, state, and federal standard requirements will assure that the Project will not violate any water quality standards or waste discharge requirements or conflict with any water quality control plan or sustainable ground water management plan. Project impacts will be less than significant.

b) **Less Than Significant Impact.** During construction, water demand will be limited and temporary and used for dust control purposes, including the routine spraying of ground surfaces and construction equipment. During operation, water will be used for typical residential purposes, drought-tolerant landscape irrigation, and swimming pools.

The projected residential water demand per the CalEEMod runs in Appendix A is 5,710,321 gallons per year (17.5 acre feet/year) (AFY) for indoor use and 43,419,257 gallons per year (133.25 AFY) for outdoor use. The total gallons per year are 491,295,578 or 150.75 AFY.

According to the 2025 Twentynine Palms UWMP, the Twentynine Palms Water District's (District) projected 2050 potable water demand is 2,610 AFY (UWMP Table ES-1). The projected 2050 water production is 6,995 AFY (UWMP Table ES-2). The Project's projected water demand increase is well within the District's projected water supply projections for 2050. Therefore, the Project will not substantially decrease local groundwater supplies or interfere with groundwater recharge such that it would impede sustainable management of the basin. The Project includes irrigation requirements, including the use of water-efficient fixtures and drought-tolerant landscape materials, which will help reduce water demand over the long term. Impacts will be less than significant.

The Project will also be required to comply with conditions of approval pertaining to discharge, standard stormwater management requirements, and project- specific Best Management Practices (BMPs) and a Water Quality Management Plan (WQMP) that are subject to approval by the City Engineer and required by the City's NPDES implementation agreement. Implementation of the WQMP and BMPs will reduce impacts to surface waters by reducing siltation and reducing or eliminating pollutants in storm flows, including pathogens (bacteria/virus) generally associated with human activities but also present in the environment. With the implementation of these measures, impacts associated with surface water pollution will be less than significant.

Adherence to City requirements, including WQMP BMPs, will ensure the Project will not result in erosion or siltation on- or off-site. Implementation of these and other applicable requirements will assure that the Project will not create or contribute water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

c i)- iv) Less Than Significant Impact. A Final Drainage Study (Appendix H) was prepared for the Project by NV5 on June 14, 2026 that included the hydrologic analyses. The onsite development proposes 137 residential lots, onsite and offsite street improvements, and two retention ponds. Impact to the site from offsite flows was considered along the western and southern boundaries. The offsite tributary is comprised of approximately 67 acres. Using the NOAA Atlas 14 Point Precipitation Frequency Estimates Twentynine Palms County Y Station ID: 79-9004 and an Antecedent Moisture Condition Map (AMC) value of AMC I, the runoff generated during a 24-hour, 100-year event amounts to 402 CFS. 253 CFS will impact the western boundary and will be conveyed north along Desert Knoll Avenue as street flow and 149 CFS will impact the southern boundary. Offsite runoff that impacts the southern boundary will convey east along Two Mile Road, as street flow. Street flows conveyed along Two Mile Road and along Desert Knoll Avenue are contained within their respective rights-of-way and do not impact the onsite development. Structures and residences proposed within the Flood Hazard Zone "AE" will be constructed at or above their respective, designated Base Flood Elevations.

Improvements previously constructed as part of TTM 17168 of development consist of 40 residential lots (none of which are located within the previously mentioned Flood Hazard Zone "AE"), associated sewer and water improvements, street improvements for Manana Drive, Cedar Avenue, Marine Drive, "A" Street, Retention Lot "A", and some interim onsite berming along the southern side of Retention Lot A. Residential lots proposed with Phases 1 and 2 of the development for Tract No. 17168 are adequately raised for flood protection from on and offsite flows. Retention Lot "A" was constructed at the time to negate any increase in runoff volume or peak flow rate incurred by the entire development. Sufficient onsite retention is provided with Retention Lot "A", so as to offset the incremental increase in runoff resulting from full development of Tract No. 20866. Adjacent and/or downstream properties are not adversely affected by the proposed manner of development. Residential Lots proposed as part of Tract No. 20866 that are impacted by the previously mentioned Flood Hazard Zone "AE", should be elevated so the finished floor is a minimum of one-foot above the designated FEMA Base Flood Elevation. Impacts associated with on- and off-site storm flows will be less than significant.

Development of the project site will be accomplished in a manner that will maintain historical downstream flow patterns. The development should not adversely affect surrounding or downstream properties and the effects of post-development incremental increase flows is mitigated by the volume provided in existing Retention Pond A and the proposed Retention Pond B.

The Project will also be required to comply with conditions of approval pertaining to discharge, standard stormwater management requirements, and project- specific BMPs and a WQMP that are subject to approval by the City Engineer and required by the City's NPDES implementation agreement. Implementation of the WQMP and BMPs will reduce impacts to surface waters by reducing siltation and reducing or eliminating pollutants in storm flows, including pathogens associated with human activities but also present in the environment. Impacts associated with surface water pollution will be less than significant.

d) **Less Than Significant Impact.** The Project is not located in the vicinity of a water body or a dam. The City is located inland and would not be subject to tsunami. No hazard from dam failure, tsunami or seiche is possible.

FEMA FIRM Panel 06071C8195 shows that an eastern portion of the site is impacted by a Special Flood Hazard Zone "AE". Special Flood Hazard Zone "AE" is defined as an area that is impacted by the 100-year storm, for which Base Flood Elevations have been determined. Phase 1 and the majority of Phase 2 and 3 of the development falls within a Zone "X", which is described as an area not likely to be inundated by the 100-year storm. Portions of Phase 2 and 3 as well as Phases 4 through 6 of the proposed development is impacted by the subject Flood Hazard Zone "AE".

Residential lots proposed as part of Tract No. 20866 that are impacted by the previously mentioned Flood Hazard Zone "AE", should be elevated so the finished floor is a minimum of one-foot above the designated FEMA Base Flood Elevation. Impacts associated with flooding will be less than significant.

e) **No Impact.** The proposed Project will be required to comply with all applicable water quality standards approved by the City and the Regional Water Quality Control Board for both construction activities and long-term operation of the Project. The proposed Project will not significantly increase water demand as addressed in the UWMP. Therefore, it will not conflict with a sustainable groundwater management plan. Adherence to the RWQCB and City's standard requirements related to water quality will ensure there will be no impact to a water quality control plan.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	

Sources: City of Twentynine Palms General Plan; project materials.

Environmental Setting

The Project site is predominately vacant and surrounded by sparsely developed desert lands, residential developments and two schools. The 137 residential lots will allow for the construction and operation of 137 houses under a General Plan Land Use Designation of Single-Family Residential (RS-3) and a Zoning classification of Single-Family Residential (RS-3) with a maximum 3 dwelling units per acre. The RS-3 designation allows for single-family development.

Discussion of Impacts

a) **No Impact.** The Project will not divide an established community. The current

map is a continuation of a development that was authorized under Tract 17168. It will complete the prior planned improvements and lotting pattern. The Development Agreement will not affect the established community. No impact will occur.

a) Less Than Significant Impact. The Project will comply with all development standards and regulations applicable to the Single-Family Residential 3 zone. As such, the Project will be consistent with standards, regulations, and policies stated in the City's General Plan and Municipal Code. The Project is not expected to cause environmental effects related to the violation local regulations. For this reason, less than significant impacts will occur.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

Sources: Google Earth; City of Twentynine Palms General Plan.

Environmental Setting

The City is not identified as a mineral resource area of significance, although mining has occurred in and around the City in its history. The General Plan uses the State's mineral resource designations to determine the potential for mineral resources to exist in any given area.

Discussion of Impacts

a), b) No Impact. Neither the City nor the Project site are designated by the State as having significant mineral resources. As a result, implementation of the Project will not impact such resources, and no impact will occur.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
XIII. NOISE - Would the project result in:				
a) Generation of 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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

Sources: Google Earth; City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010) and Tract 17168 Twentynine Palms Noise and Vibration Analysis prepared by Urban Crossroads dated May 19, 2026.

Environmental Setting

The main sources of noise in an urban environment include road traffic, aircraft, railroads, construction, industry, noise in buildings, and consumer products. According to the United States Environmental Protection Agency (US EPA), in any city, the main sources of traffic noise are the motors and exhaust systems of autos, trucks, buses, and motorcycles. Temporary noise sources include landscape maintenance activities, home stereo systems, and barking dogs.

The City has established goals, policies, and programs to limit and reduce the effects of noise intrusion on sensitive land uses and set acceptable noise levels for varying types of land uses in its General Plan. The City uses the Community Noise Equivalent Level (CNEL) to guide acceptable noise levels in the community. The CNEL scale establishes acceptable noise levels for low density, single family homes at 50 to 60 dBA, and conditionally acceptable levels at 55 to 70 dBA. The CNEL scale represents an average of noise levels over a 24-hour period and is weighted for the quieter evening and nighttime periods. The City also enforces noise events through the City Noise Ordinance (Chapter 19.74).

Urban Crossroads prepared a noise impact analysis for the proposed Project (Appendix I). Its findings are summarized in the analysis below.

Discussion of Impacts

a) **Less Than Significant Impact.** The Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines. Under CEQA, consideration must be given to the existing baseline ambient noise levels, the magnitude of the noise-level increase, and the location of receivers, as well as the agency's noise standards, to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called ambient environment, as well as consideration of the local noise standards adopted by the community.

The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that considers the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts over a 24-hour period, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (Leq). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level is likely to be perceived.

The approach used in the noise study recognizes that there is no single noise increase that renders a noise impact significant, based on a 2008 California Court of Appeals ruling on Gray v. County of Madera. For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria are exceeded. Therefore, for this analysis, a readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the without-project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance.

The FICON guidance provides an established source of criteria to assess the impacts of a substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses

to noise level increases of 5 dBA or readily perceptible, 3 dBA or barely perceptible and 1.5 dBA, depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increase and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration and Caltrans.

To control the noise-generating construction activities, the temporary noise level increases over the existing ambient conditions must be considered under CEQA Significance Threshold A. Although noise ordinances vary across jurisdictions, many cities and counties in California, including Los Angeles, San Diego, and San Francisco, set construction noise limits between 75 and 80 dBA Leq and typically restrict construction activities to the daytime hours. In contrast, everyday noise regulations are more stringent because they apply to continuous, long-term noise sources that can significantly impact the quality of life. As a result, many jurisdictions establish daytime residential noise limits around 55 dBA Leq. This suggests that a reasonable 20 dBA increase over the daytime noise limit can be tolerated without significant adverse effects. This is also illustrated in the adoption of many CEQA documents statewide that use an 80 dBA Leq limit for assessing construction impacts while using everyday noise level limits of local noise ordinances in assessing on-site operational impacts.

Results of the construction noise analysis show that the nearest receiver locations will be below the daytime 80 dBA Leq significance threshold established by the FTA, and therefore impacts due to Project construction noise is considered less than significant.

b) **Less Than Significant Impact.** Excessive vibration during construction occurs only when high vibration equipment (i.e., compactors, large dozers, or pile drivers) are operated. The proposed Project may require limited use of equipment with high vibration levels during construction. The vibration impacts originating from the construction of the Tract 20866 are appropriately evaluated using standards established by the Caltrans Transportation and Construction Vibration Guidance Manual, Table 19. The Caltrans' vibration thresholds are used in the noise study to assess potential operational and temporary construction-related impacts at adjacent building locations. A maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec) is used to describe the nearest residential buildings adjacent to the Project site.

It is expected that ground-borne vibration from project construction activities would cause only intermittent, localized intrusion due to heavy construction equipment and trucks, at levels well below the threshold. The City will require that construction activity comply with Section §19.80.100 of the Municipal Code, which limits construction activity to hours during the less sensitive daytime hours. These requirements will assure that short-term ground-borne vibration impacts will be less than significant. Long-term operation of

the project is not expected to generate ground-borne vibrations or noise. Impacts will be less than significant.

c) **No Impact.** The nearest major public airport is the Twentynine Palms Airport, located approximately 7 miles southeast of the Project site. The Twentynine Palms Airport is located more than 2 miles from the Project; as such, no impacts will occur, and no further noise analysis is required.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
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)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Sources: Google Earth; City of Twentynine Palms General Plan.

Environmental Setting

Per the 2020 U.S. Census, the total population in the City was 28,065, which includes the MCAGCC. The City's 2012 General Plan lists an ultimate buildout population of 103,275 for the entire City, including 22,500 for the MCAGCC and 80,775 for the remainder of the City.

In 2023, Twentynine Palms was estimated to have a population size of approximately 28,734. The household size is a mix of single- and multi-family homes. 32.2% of households consist of 2 people, and 25% of households consist of one person. The City has a total of 9,681 housing units, of which 8,749 units are occupied, equating to a 9.6% vacancy rate. The City's population size is expected to increase to approximately 33,300 by 2045.

Discussion of Impacts

a) **Less Than Significant Impact.** The Project would result in the development of a 137 lot subdivision and the construction of 137 residences on 73.3 acres. The development would support 345 new residents. The Project will require roadway improvements along Desert Knoll Avenue and Utah Trail and the extension of

Samarkand Drive through the northern portion of the map to connect to Utah Trail; however these roadways are part of the City's existing circulation system and planned buildout, and are not considered expansions of the existing circulation system. Limited population growth will be generated as a result of the Project's development. For this reason, less than significant impact will occur.

b) **No Impact.** The Project site is predominately vacant, and will not displace any resident. In addition, the Project will generate very limited employment (for maintenance and repair only), and will therefore not require additional housing. There will be no impacts associated with population or housing.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?				X

Sources: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); project materials.

Environmental Setting

Fire Protection

The San Bernardino County Fire Department (SBCFD) is responsible for fire protection within the City. SBCFD operates 67 fire stations in 24 cities and covers approximately 19,278 square miles in the County. SBCFD has a staff of about 1,017 county firefighting personnel and 654 fire suppression personal available during each 24-hour period. The nearest fire station is Station# 44 at 6560 Adobe Road, approximately 2.8 miles to the southwest.

Police Protection

The San Bernardino County Sheriff's Department is responsible for law enforcement in the City. A local police station operates out of City Hall at 6135 Adobe Road. The main

police station is located at 6527 White Feather Road in Joshua Tree, approximately 15.5 miles west of the Project.

Schools
The City and the Project area are located within the boundaries of the Morongo Unified School District (MUSD), which provides public school facilities to accommodate students. The MUSD currently operates eighteen schools within its district, which stretches beyond Twentynine Palms to Yucca Valley and Morongo Valley.

Parks
There are a total of four existing parks (i.e. Bucklin Park, Luckie Park, Knott's Sky Park, and Veteran's Park) in the City. Pioneer Park is planned, but not yet constructed. The City's other major recreational facilities include Theatre 29, the Senior Community Center, Parks and Recreation Community Services Building, and Parks and Recreation Administration Building.

Discussion of Impacts

a)

Fire Protection

Less than Significant Impact. Although the addition of 137 new structures has the potential to increase fire department calls, the Project is consistent with planned growth in the area, and will add single story structures similar in mass and scale to the residential development that would occur under the current Land Use and Zoning designation. In addition, the development plans for the Project will be reviewed by the Fire Department so that they meet Fire Code, and access and circulation requirements to assure that the Department can access all structures on-site. The Project will also generate property taxes for the City, which will provide revenue to offset additional service costs. The proposed Project will comply with the California Fire Code and regulations of the County Fire Department to reduce fire protection impacts to less than significant levels.

Police Protection

Less than Significant Impact. The proposed Project could potentially increase the number of police service calls due to an increase in 345 new residents. Based on the type and intensity of the proposed uses, the Project would not require the construction of new or expanded police station facilities. Project site plans would be reviewed by the Police Department, and the Project will be required to meet standard safety requirements. The Project will also generate property taxes for the City, which will provide revenue to offset additional service costs. Impacts associated with police protection are expected to be less than significant.
Schools:

Less than Significant Impact. The Project proposes 137 new residential dwelling units and would directly generate additional demand for schools. The Morongo Unified School District has indicated the Project will be required to pay school impact fees, which are specifically designed to mitigate the impacts to schools caused by new development. Impacts would be less than significant.

Parks

Less than Significant Impact. The need for additional parkland is primarily based on an increase in population to an area. The proposed Project would increase the population of the City by 345 residents; the Project would not burden any parks in the surrounding area beyond capacity by generating significantly more additional recreational users. Therefore, the proposed Project would not require the construction or expansion of park and recreational facilities and would also not result in a substantial increase in demand for parks and recreation facilities in the surrounding area beyond the ability to currently provide services. A less than significant impact to parks will occur.

Other Public Facilities

No Impact. The Project will not negatively impact City operations. The proposed development would not warrant the construction of new or expanded facilities. No impact to other public facilities will occur.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
XVI. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Sources: Google Earth; City of Twentynine Palms General Plan.

Environmental Setting

The City of Twentynine Palms operates recreational facilities on 175 acres, including parks, special use areas and passive use areas provided by different sources including the City of Twentynine Palms, the Morongo School District and the Marine Corps Air Ground Combat Center.

Discussion of Impacts

a, b) Less Than Significant Impact. The proposed Project proposes to add 345 new residents that would require recreation facilities. The Project would increase the use of existing neighborhood and regional parks or other recreational facilities, however, the project population increase has been factored into programming such that substantial physical deterioration of the facility would not occur or be accelerated. The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. A less than significant impact would occur.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
XVII. TRIBAL RESOURCES-- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
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.		X		

Source: City of Twentynine Palms General Plan; City of Twentynine Palms General Plan Update Draft Environmental Impact Report (2010); Archaeological Resources Inventory Report for the Desert Knoll Project, San Bernardino County, California prepared by ECORP Consulting, Inc. dated January 2026 and email from Kristen Tuosto from the Yuhaaviatam of San Manuel Nation dated May 11, 2026.

Environmental Setting

As discussed in the Section V, Cultural Resources, the Mojave Desert, including the City of Twentynine Palms have been home to the Serrano and the Chemehuevi Native Americans for centuries. Today, most Serrano descendants are affiliated with the San Manuel and the Morongo Indian Reservations, while the Chemehuevi are divided among the Chemehuevi, the Colorado River, and the Morongo Reservations.

The City and surrounding areas contain significant cultural resources to the Native American people which are considered non-renewable resources because they provide important information about the past and are of high cultural value to the tribes.

Discussion of Impacts

a, b) Less Than Significant Impact with Mitigation Incorporated. The Project area occurs in an area with no currently known Tribal Resources, but such resources have been identified throughout the City. The City contacted 28 Tribal representatives on April 14, 2026 as part of the AB 52 consultation process. The Augustine Band of Cahuilla Indians responded on April 27, 2026 that they were not aware of any specific cultural resources within the Project area that would affect the proposed development and therefore, did not wish to initiate a consultation process. The Yuhaaviatam of San Manuel Nation (YSMN) requested additional information on April 27, 2026. The City provided said information on April 29, 2026. YSMN on May 11, 2026 requested that language be made part of the project/permit/plan conditions. Their language is included as Mitigation Measures CUL-1 for a Monitoring and Treatment Plan, CUL-2 for Archaeological Monitoring, CUL-3 for a Worker Environmental Awareness Program, CUL-4 for Inadvertent Discoveries of Human Remains and under the this Tribal Cultural Resource section XVIII: TCR-1 for Tribal Monitoring and TCR-2 for Treat of Cultural Resources During Project Implementation.

Additionally, ECORP contacted the California Native American Heritage Commission (NAHC) on November 10, 2025 to request a search of the Sacred Land File (SLF) for the Project area. The search determines whether California Native American tribes have recorded Sacred Lands in the vicinity of the Project area. The SLF is populated by members of the Native American community with knowledge about the locations of TCRs. In requesting a search of the SLF, ECORP solicited information from the Native American community regarding TCRs; however, the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies do not delegate government-to-government authority to any private entity to conduct tribal consultation.

With implementation of mitigation measures, potential impacts to archaeological resources will be reduced to less than significant levels.

Mitigation Measures:

TCR-1 Tribal Monitoring

Due to the heightened cultural sensitivity of the proposed Project area, at the discretion of the consulting tribe(s), Tribal monitor(s) authorized to represent YSMN shall be present for all ground-disturbing activities that occur within the proposed project area (which includes, but is not limited to, tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, compaction, fence/gate removal and installation, drainage and irrigation removal and installation, hardscape installation [benches, signage, boulders, walls, seat walls, fountains, etc.], and archaeological work). At the discretion of the consulting tribes, a sufficient number of Tribal monitors shall be present each work day to ensure that simultaneously occurring ground disturbing activities receive thorough levels of monitoring coverage. A Monitoring and Treatment Plan that is reflective of the project mitigation ("Cultural Resources" and "Tribal Cultural Resources") shall be completed by the archaeologist, as detailed within CUL-1, and submitted to the City for dissemination to the Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN). Once all parties review and agree to the plan, it shall be adopted by the City – the plan must be adopted prior to permitting for the project. Any and all findings will be subject to the protocol detailed within the Monitoring and Treatment Plan.

TCR-2 Treatment of Cultural Resources During Project Implementation

If a pre-contact cultural resource is discovered during project implementation, ground-disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed.

The Project Archaeologist shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria. Representatives from YSMN, the Archaeologist, and the Lead Agency shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe, unless otherwise decided by YSMN. All plans for analysis shall be reviewed and approved by the applicant and YSMN prior to implementation, and all removed material shall be temporarily curated on-site.

It is the preference of YSMN that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during project implementation not be feasible, then a reburial location for future reburial shall be decided upon by YSMN, the landowner, and the City and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground-disturbing activities associated with

the project have been completed, all monitoring has ceased, all cataloguing and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to City, CHRIS, and YSMN. All reburials are subject to a reburial agreement that shall be developed between the landowner and YSMN outlining the determined reburial process/location, and shall include measures and provisions to protect the reburial area from any future impacts.

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with YSMN to identify an American Association of Museums (AAM)-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the Project developer/applicant to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the archaeologist and submitted to the City and YSMN for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the City, and YSMN.

Monitoring:

TCR-A Prior to the issuance of any permit to allow ground disturbance on the site, the City will receive and file all technical plans, agreements and programs in the project file.

Responsible Parties: Project archaeologist, Planning Department, City Engineer.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
XVIII. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Sources: City of Twentynine Palms General Plan; Google Earth; Technical Advisory on Evaluating Transportation Impacts in CEQA, State of California Governor's Office of Planning and Research, December 2018 and Tentative Tract Map 17168, Phases 3 to 8, Traffic Analysis prepared by Urban Crossroads dated January 20, 2026.

Environmental Setting

The City's General Plan requires that traffic flow on new streets be maintained at level of service (LOS) C or better according to Implementation Policy CI-1.1. The City's VMT Policy establishes that there is no standard for LOS on existing streets. Caltrans strives to maintain LOS D on State highways, including SR-62.

The City of Twentynine Palms has established LOS C as the minimum level of service (LOS) for all new streets within the City (Implementation Policy CI-1.1 of the General Plan Circulation Element). The City of Twentynine Palms' Vehicle Miles Traveled Policy Guidance (August 2020) indicates that "LOS is generally not a problem in the City of Twentynine Palms. Most streets and intersection function at LOS A or B. Rush hours are generally not congested. And intersections that were a problem have been improved with traffic signals and upgrades – Rt. 62 at Lear Avenue, Adobe Road, and Utah Trail. The City has no policy requiring LOS to be maintained on existing roads at C or better as some cities do."

The primary east-west corridors in the Project vicinity are SR-62/Twentynine Palms Highway located approximately 1.7 miles to the south and Two Mile Road, classified as an Arterial (4-lane divided), located 0.7 miles to the south. The primary north-south access is Utah Trail, classified as a 6-Lane Expressway and it is the eastern boundary of the Project site. Desert Knoll Avenue is classified as Secondary roadway (4-lane undivided) and it is the western boundary of the proposed subdivision. Access to the Project is provided via Manana Drive from Desert Knoll Avenue and the future extension of Samarkand Drive between Desert Knoll Avenue and Utah Trail. Manana Drive east of Desert Knoll Avenue and Marine Avenue north of Two Mile Road were constructed in conjunction with phases 1 and 2 of Tentative Tract Map 17168. Desert Knoll Avenue, Utah Trail and Manana Drive are paved roadways.

Transit service is provided in the City by Basin Transit. Route 3B (Twentynine Palms Neighborhood) service the Project area.

Urban Crossroad prepared a Traffic Analysis (Appendix J) and Vehicle Miles Traveled Screening Evaluation (Appendix J) for the proposed Project. The analyses have been prepared in accordance with the City of Twentynine Palms Traffic Study Policy (2021), Planning Commission Resolution No. 20-07, and the adoption of SB743, Vehicle Miles Traveled Policy Guidance Staff Report. In addition, the Project's trip-

generation is derived from the Institute of Transportation Engineers (ITE) Trip Generation 12th Edition.

Discussion of Impacts

a) Less Than Significant Impact. For the purposes of the Traffic Analysis, LOS D is recognized as the minimum level of service for existing intersections along Two Mile Road and Desert Knoll Avenue, while LOS C is the minimum acceptable for future roadways which include Samarkand Drive. LOS calculations were conducted for the study intersections to evaluate their operations under Existing Plus Project conditions with roadway and intersection geometrics. The study area intersections are anticipated to operate at an acceptable LOS under Existing Plus Project traffic conditions ranging from LOS A to LOS C.

The Project is expected to generate a total of 1,245 trip-ends per day. The land-use designations used to describe the site were Single Family Detached ITE Code 210).

The Traffic Analysis recommended the following minimum improvements to accommodate site access and maintain acceptable peak hour operations for the proposed Project.

- Widen Desert Knoll Avenue to its ultimate half-section width as a Secondary roadway, including an additional 14 feet of east side pavement width (added to the existing 18 feet of east side pavement), as well as 8 feet of east side added parkway width.

- Construct Samarkand Drive from the Desert Knoll Avenue intersection to its ultimate pavement width as a local roadway as well as 12 feet of parkway widths.

- Widen Utah Trail to its ultimate half-section width as an Expressway, including an additional 20 feet of west side pavement width (added to the existing 32 feet of west side pavement), as well as 8 feet of west side added parkway width.

Additional dedications will be necessary to achieve ultimate General Plan roadway widths.

Site adjacent intersection improvements include the following:

Desert Knoll Avenue/Samarkand Drive

- Install a stop controls on the eastbound and westbound approaches.
- Provide one westbound shared left-through lane.

Utah Trail/Samarkand Drive

- Install a stop control on the eastbound approach.

- Provide one eastbound shared left-right lane.

A Class I bike path will be constructed along Trail adjacent to the project boundaries. Multi-purpose trails are designated on Adobe Road, Utah Trail, and Two Mile Road in the Project area.

Existing pedestrian facilities within the study area consist of marked crosswalks at the intersection of Adobe Road/Two-Mile Road, bike lanes on both sides of Utah Trail north of Aztec Avenue, and sidewalks located at the following locations within the study area:

- Adobe Road, west and east sides.
- Desert Knoll Avenue, east side between Two Mile Road and approximately 150 ft. north of Manana Drive.
- Marine Avenue, west and east sides north of Two Mile Road.
- Portions of Two Mile Road
  - North and south sides west of Adobe Road.
  - South side between Aztec Avenue and Desert Knoll Avenue.
  - North side between Desert Knoll Avenue and approximately 200 ft. east of Marine Avenue.
- Manana Drive, north and south sides.

Basin Transit (BT) provides transit service in the Morongo Basin, including the City of Twentynine Palms. The BT operates three fixed bus routes throughout the City: Route 1 (Yucca Valley-Twentynine Palms), Route 3A (Twentynine Palms Marine Base), and Route 3B (Twentynine Palms Neighborhood). The closest route near the Project site is Route 3B (Twentynine Palms Neighborhood). The closest bus stop to the site is located approximately 0.24 miles to the southwest at Two Mile Road and the Aztec Apartments. A secondary bus stop is located approximately 0.45 miles south near the southwest corner of Two Mile Road and Utah Trail at Luckie Park.

The Project will not conflict with the City's adopted traffic policies. Transit service is reviewed and updated by BT periodically to address ridership, budget and community demand needs. Once operational, the Project is not expected to significantly degrade the accessibility to transit, roadways, bicycle lanes, or pedestrian facilities. With the recommended site and site adjacent improvements in place, the Project's development will result in less than significant impacts.

b) Less Than Significant Impact. CEQA Guidelines section 15064.3 sets forth guidelines for implementing Senate Bill 743 (SB 743) which promotes GHG emission reduction, the development of multimodal transportation networks, and diversity of land uses. Amendments to CEQA Guidelines include the evaluation of a project's transportation impact based on vehicle miles traveled or VMT metric. VMT refers to the amount and distance of automobile travel related to a project.

To comply with CEQA, the City of Twentynine Palms adopted analytical procedures, screening tools, and impact thresholds for VMT, which are documented in the City of Twentynine Palms Planning Commission Resolution No. 20-07 (August 2020).

Consistent with City Guidelines, projects should evaluate available screening criteria based on their location and project type to determine if a presumption of a less than significant transportation impact can be made. The VMT analysis prepared for the Project (Appendix J) determined the Project met the VMT analysis using SBTAM forecast of total daily VMT/SP screening step where a significant impact would occur if the project VMT/SP exceeds the Citywide average under General Plan Buildout Conditions. This map based or low VMT area screening criteria eliminates the need for complex analyses by allowing existing VMT data to serve as a basis for screening. A Project is presumed to have a less-than-significant impact if the area of development is under the threshold as shown on the screening map. The Project is consistent with the General Plan land use designation and would not conflict with CEQA Guidelines section 15064.3. Impacts are less than significant.

c) **Less Than Significant Impact.** The Project makes use of Two Mile Road, Utah Trail and Desert Knoll Avenue, existing streets, to provide access to the site. The Project proposes the extension and improvement of Desert Knoll Avenue and Utah Trail to provide the primary and secondary access points, respectively. The construction of these roadways will be in accordance with the City's General Plan Circulation Element and applicable standards imposed by the City through conditions of approval. The intersections of these roadways will be at 90 degree angles, and will not increase hazards or limit the line of sight at these locations. Similarly, the access at Samarkand Drive will be designed to City standards, and will be required to preserve line of sight. Interior to the Project, the residential roadways will be required to demonstrate that line of sight is preserved. Impacts associated with Project roadway hazards will be less than significant.

d) **Less Than Significant Impact.** The proposed Project does not involve a use or activity that could interfere with long-term emergency response or emergency evacuation plans for the area. Project operation as a residential use would not change any existing roads, including areas provided for emergency access. Prior to construction, both the Fire Department and Sheriff Department will review the Project site plan to ensure safety measures are addressed, including emergency access. Construction plans will be coordinated with the City and emergency providers, as needed, to assure that emergency access is maintained throughout all stages of development. Impacts are less than significant.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	Less Than Significant w/ Mitigation	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider that 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?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Source: Twentynine Palms General Plan; and Twentynine Palms Water District (TPWD) 2025 Urban Water Management Plan adopted May 27, 2026 by Resolution 26-06 prepared by Kennedy Jenks.

Environmental Setting

Domestic Water (please also see Hydrology and Water Resources)

The proposed Project is located within the Twentynine Palms Water District (TPWD) boundaries for domestic water services. The District's water supply source is 100 percent groundwater produced from District-owned and operated wells. The District provides water service to approximately 17,373 residents and 8,362 service connections in their water service area (Twentynine Palms Water District 2025 Urban Water Management Plan). Based on average water consumption, the projected 2050 potable water demand will be approximately 2,610 AFY (UWMP Table ES-1). TPWD met and exceeded the required reductions under SBx7-7 (20 percent reduction in per capita water use) in 2020 and 2025. TPWD has met its 2025 Urban Water Use Objectives (until 2028). Beginning in 2028, projected standards are expected to require an 18 to 46 percent reduction in water use through 2050. Annual water usage is approximately 2,200 – 2,500 acre-feet (AF), which is mostly used by single-family residential (approximately 60 percent), and the other 40 percent is a combination of

multi-family residential, commercial/institutional, or landscape/irrigation.

Wastewater Treatment
The City, including the Project area, does not have a sanitary sewer system and currently operates with septic tanks and project-specific treatment, or "package" plants. The Project proposes an on-site package treatment plant. TPWD does not use any recycled water or other non-potable water sources.

Flood Control/Drainage
The San Bernardino County Flood Control District (SBFCD) is responsible for managing regional drainage within and in the vicinity of Twentynine Palms. The City works with SBFCD to manage local drainages in the City, which are divided between well-defined drainage courses (some have been channelized) and areas of wide sheet flow. Development that may alter the direction of flow onsite is conditioned per standard San Bernardino County practices to maintain the existing site drainage patterns at inlets and outlets.

Solid Waste
Burrtec Waste & Recycling Services provides solid waste pick up and disposal, as well as recycling services in the City. Solid waste disposal and landfill siting is handled by the County of San Bernardino, Solid Waste Management Division. Each residential lot within the subdivision will be assigned individual bins for trash, recycling and green waste removal.

Other Utilities
The electrical energy to the City is provided by Southern California Edison (SCE). Telephone service is provided by a number of companies, including both land lines and cellular services. The Project will utilize Frontier Communications for telephone, video and data services.

Discussion of Impacts

a) Less Than Significant Impact.

Water

The Twentynine Palms Water District (TPWD) will provide water for the Project. The Project will connect to existing water infrastructure in Desert Knoll Avenue, and loop a water line through the Project development area. According to the Twentynine Palms 2025 UWMP, the Twentynine Palms Water District's (District) projected 2050 water demand is 2,610 AFY (UWMP Table ES-1). The projected 2050 water production is 6,995 AFY (UWMP Table ES-2). The proposed Project's water demand per the CalEEMod runs in Appendix A is 5,710,321 gallons per year (17.5 AFY) for indoor use and 43,419,257 gallons per year (133.25 AFY) for outdoor use. The total gallons per year are 491,295,578 or 150.75 AFY. The Project's projected water demand is well within the District's projected water supply projections for 2050.

Therefore, the Project will not substantially decrease local groundwater supplies. Buildings will be equipped with water efficient fixtures in compliance with Building Code requirements to reduce water consumption. The Project includes irrigation requirements, including the use of water-efficient fixtures and drought-tolerant landscape materials, which will help reduce water demand over the long term. Impacts will be less than significant.

Wastewater

Neither the City nor the Twentynine Palms Water District (TPWD) has a municipal sewer system. The applicant proposes to complete the building of a wastewater collection, treatment, and disposal system to service the subdivision. The subdivision will generate up to 49,560 gallons per day (gpd) of domestic wastewater. The wastewater treatment facility (WWTF) will consist of an activated sludge package treatment plant with a rated capacity of 50,000 gpd. The facility will include metering instrumentation, screening, grit removal, a flow equalization basin, two (2) extended aeration tanks, two (2) secondary clarifiers, one (1) aerobic sludge digester, and one (1) chlorine contact tank for disinfection. The plant may be operated in nitrification/denitrification mode.

The original Project (TM 17168) proposed and approved a GeoFlow subsurface drip irrigation system to irrigate street parkways on public property. These subsurface areas were planned for the parkways along B, G, and H Streets. The street parkway GeoFlow system was not completed; instead, an alternate 36,000-square-foot area was built near the WWTP. The current Project proposes a 90,132-square-foot GeoFlow field in the northeast corner of the site (Lot D), and the existing GeoFlow field will be removed near Lots 53-54. Six seepage pits are available for backup disposal when parts of the subsurface irrigation system are inoperative due to maintenance or repair. Solids and sludge will be removed from the treatment train by a licensed septage hauler, and disposed of pursuant to state regulation.

The package plant will be designed to treat all of the sewage on-site, and maintain the plant consistent with State law. The proposed treatment plant will be required to meet or exceed RWQCB waste discharge standards, and comply with all local, regional and state regulations relating to waste discharge. As a result of existing law and standard requirements, impacts associated with wastewater will be less than significant.

Stormwater Drainage

There are no proposed storm drains as part of this development. The onsite developments proposed consist of 137 residential lots, onsite and offsite street improvements, and two retention ponds. Impact to the site from offsite flows was considered along the western and southern boundaries. The offsite tributary is comprised of approximately 67 acres. Using the NOAA Atlas 14 Point Precipitation Frequency Estimates Twentynine Palms County Y Station ID: 79-9004 and an Antecedent Moisture Condition Map (AMC) value of AMC I, the runoff generated during a 24-hour, 100-year event amounts to 402 CFS.

253 CFS will impact the western boundary and will be conveyed north along Desert Knoll Avenue as street flow and 149 CFS will impact the southern boundary. Offsite runoff that impacts the southern boundary will convey east along Two Mile Road, as street flow. Street flows conveyed along Two Mile Road and along Desert Knoll Avenue are contained within their respective rights-of-way and do not impact the onsite development. Structures and residences proposed within the Flood Hazard Zone "AE" will be constructed at or above their respective, designated Base Flood Elevations.

The proposed Project will not discharge into either regional or local drainage systems. Rather, it will manage stormwater on-site. A final hydrologic analysis will be required to demonstrate that the Project meets the City's standards for on-site stormwater retention. These standard requirements will assure that impacts associated with storm water retention remain less than significant.

Other Utilities

The proposed Project will require construction of on-site electric power and telecommunications infrastructure for the proposed subdivision. There is no natural gas connections proposed for the development. Propane will be utilized for heating purposes. The Project would not result in the construction of new electric power or telecommunications facilities off-site that could cause significant environmental effects.

b) **Less Than Significant Impact.** The proposed Project's water demand per the CalEEMod runs in Appendix A is 5,710,321 gallons per year (17.5 AFY) for indoor use and 43,419,257 gallons per year (133.25 AFY) for outdoor use. The total gallons per year are 491,295,578 or 150.75 AFY. The Project's projected water demand is well within the District's projected water supply projections for 2050. According to the 2025 UWMP projections, there will be sufficient water supplies to serve the subdivision. As a result, impacts associated with water supplies will be less than significant.

c) **Less Than Significant Impact.** There is no regional sanitary sewer service. The Project proposes an on-site package treatment plant. Neither the City nor the Twentynine Palms Water District (TPWD) has a municipal sewer system. The applicant proposes to complete the building of a wastewater collection, treatment, and disposal system to service the subdivision. The subdivision will generate up to 49,560 gallons per day (gpd) of domestic wastewater. The wastewater treatment facility (WWTF) will consist of an activated sludge package treatment plant with a rated capacity of 50,000 gpd. The facility will include metering instrumentation, screening, grit removal, a flow equalization basin, two (2) extended aeration tanks, two (2) secondary clarifiers, one (1) aerobic sludge digester, and one (1) chlorine contact tank for disinfection. The plant may be operated in nitrification/denitrification mode. The Project will not impact sewer capacity, and a less than significant impact will occur.

d, e) **Less Than Significant Impact.** Construction and operations-related solid

waste from the Project will be collected and disposed by Burrtec, a regional commercial vendor that serves the City by hauling solid waste to transfer and recycling centers and landfills. Trash generated by the project will be hauled to the Twentynine Palms Transfer Station, east of the City, and then transported to Landers Landfill, a regional landfill located approximately 30 miles northwest of the City. Twentynine Palms Transfer Station has a permitted throughput of 1,200 tons per day. Landers Landfill had a remaining capacity of 13,983,500 cubic yards and is estimated to close in 2072. The collection and disposal of solid waste will conform to applicable federal, State, and local plans and regulations, including AB 939 (Integrated Waste Management Act) that local jurisdictions divert at least 50 percent of all solid waste. It is expected the proposed Project would have a less than significant impact in terms of complying with federal, state, and local statutes and regulations related to solid waste.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	
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?			X	
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?			X	

Sources: Twentynine Palms General Plan; Fire and Resources Assessment Program (FRAP) maps, California Department of Forestry and Fire Protection.

Environmental Setting

Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. A wildland-urban interface is an area where urban development is located in proximity to open space or "wildland" areas. The potential for wildland fires represents a hazard where development is adjacent to open space or within close proximity to wildland fuels or designated fire severity zones.

The California Department of Forestry and Fire Protection (Cal Fire) has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP).

The General Plan identifies the project site as being in a Local Responsibility Area and a Moderate Fire Hazard Zone. The site is not located adjacent to forested areas, and the slopes of the hills surrounding the City do not support significant vegetation.

Discussion of Impacts

a) **Less than Significant Impact.** The subject property is not located in or near a state responsibility area or lands classified as a Very High Fire Hazard Severity Zone. The Project does not propose major long-term changes to circulation in the Project area other than providing direct access to the subject property. Project construction could result in temporary lane closures or detours, particularly as new driveway and intersection improvements are completed; however, potential disruptions to emergency access would be temporary and coordinated with and approved by the City through the preparation of a traffic management plan. The Project will not alter the physical orientation of the area and would not interfere with the City's emergency response or evacuation procedures in the event of a wildfire. The Project does not propose changes to existing emergency response facilities or personnel. Impacts are anticipated to be less than significant.

b) **Less Than Significant Impact.** The Project site is relatively flat and does not have slopes that would exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The impacts would be less than significant.

c) **Less than Significant Impact.** The Project site is not located within or near a state responsibility area or classified as a Very High Wildfire Hazard Severity Zone. The Project would not require the installation or maintenance of wildfire infrastructure that could exacerbate fire risks or result in adverse environmental impacts. Impacts related to infrastructure are expected to be less than significant.

d) **Less than Significant Impact.** The Project site has very low potential for

landslide and post-fire slope instability given its generally flat terrain. The Project site is located in floods AE and Zone X. The proposed Project is not expected to expose people or structures to significant risks such as downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes. Impacts are expected to be less than significant.

Mitigation Measures: None.

Monitoring: None.

	Potentially Significant Impact	**Less Than Significant w/ Mitigation**	**Less Than Significant Impact**	**No Impact**
XXI MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion of Impacts

a) Less Than Significant Impact with Mitigation. As described above, the proposed Project has the potential to impact biological (special status species, desert tortoise and migratory birds) resources. To ensure impacts are reduced to the greatest extent, the Project will be required to implement Mitigation Measure BIO-1 through BIO-4 to protect the desert tortoise and migratory birds. Additionally, the Project will be required to adhere to any

applicable City ordinance regarding the conservation of biological resources and species. In accordance with these standards and mitigation measures, the Project's development is not expected to pose a significant threat to the native and migratory species occupying the wildlife corridor. As such, less than significant impacts are anticipated. Although the Project is not located on a culturally sensitive site, mitigation measures CUL-1 through CUL-4 and TCR-1 and TCR-2 are recommended to require archaeological monitoring during earth-moving operations associated with the Project. Mitigation measures provided in this document will ensure that impacts to cultural and/or tribal resources are less than significant. Overall, there will be no significant environmental impacts to biological and cultural resources which cannot be mitigated. Project related impacts are considered less than significant.

b) **Less Than Significant Impact.** A significant impact could occur if the proposed Project, in conjunction with related projects, would result in impacts that would be less than significant when viewed separately, but would be significant when viewed together. Here, however, the impacts of the proposed Project are individually limited and not cumulatively considerable. The development intensity is consistent with residential uses in the Project area, and would not substantially increase density in the area. All environmental impacts that could occur as a result of the proposed Project would be less than significant with the implementation of mitigation measures included herein, and when viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, would not be significant.

c) **Less Than Significant Impact.** As described above, the project will not have significant impacts on human beings. Air quality and noise impacts will both be less than significant, and the project will generate only vehicle trips consistent with the forecasted density of Single-Family Residential 3.

APPENDICES

APPENDIX A: Traffic Analysis

APPENDIX B: Biological Resources Assessment Report

APPENDIX C: Archaeological Report (Confidential)

APPENDIX D: Geotechnical Report

APPENDIX E: Paleontological Assessment

APPENDIX F: Greenhouse Gas Analysis

APPENDIX G: Phase I Environmental Site Assessment

APPENDIX H: Drainage Study

APPENDIX I: Noise and Vibration Analysis

APPENDIX J: Traffic Analysis and VMT Screening

Available on the City of Twentynine Palms Website:

www.ci.twentynine-palms.ca.us