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DESERT WATER AGENCY
INITIAL STUDY AND
DRAFT MITIGATED NEGATIVE DECLARATION
FOR WELL 46 (PALM OASIS)

JULY 2023
REVISED NOVEMBER 2023

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PART 1
PROJECT INFORMATION

PART 1 - PROJECT INFORMATION

A. DESERT WATER AGENCY

Desert Water Agency (DWA or the Agency) was formed in 1961 for the purposes of securing water supplies for, and providing water service to, residents of its service area. DWA's service area is generally bounded on the north (from west to east) by the intersection of Interstate 10 and Highway 111 to Chino Canyon and the Whitewater River, on the east by the Whitewater River and the Coachella Valley Water District, on the south by the rugged Santa Rosa Mountains, and on the west by the rugged San Jacinto Mountains.

DWA currently provides municipal water service to a total population of approximately 70,000 residents within its service area, which includes the City of Palm Springs, the southwest portion of the City of Cathedral City, and some unincorporated areas within Riverside County.

B. PROJECT DESCRIPTION

1. Proposed Project

DWA's Well 46 (Project) generally consists of construction of one domestic groundwater production well on DWA's existing property (Project Site) and connection of said well to the Well 17 forebay via a proposed pipeline for subsequent use in the distribution system. The well is expected to be approximately 14 to 20 inches in diameter and to extend to a depth of up to 1,500 feet below ground surface. The well is anticipated to have an approximate capacity between 1,500 gallons per minute (gpm) and 4,000 gpm and to operate up to 365 days per year.

Construction of the Project includes the following:

Well

- Grading and installing temporary sound attenuation panels at the well site;
- Drilling, casing, developing, and testing the well using air lift equipment and a temporary, diesel-driven pump;

- Installing vertical turbine pumping unit, an electric motor with a capacity of approximately 200 to 700 horsepower, electrical switchgear, power service disconnect, controls, and telemetry;
- Installing electrical equipment;
- Installing electric power service
- Installing onsite valves, piping, and appurtenances;
- Painting of aboveground facilities;
- Constructing enclosure/ building for protection of aboveground facilities;
- Grading of an area of approximately one half (1/2) acre to two (2) acres to create a pump-to-waste retention basin;
- Wellhead disinfection facilities, including storage tanks, metering pump, ancillary facilities, and associated piping;
- Plant startup and testing; and
- Connecting to existing telemetry system.

Other Project Facilities

- Constructing an access road extending north from the northerly terminus of Sterling Avenue to the well site, and
- Constructing up to 1,600 linear feet of well discharge pipeline up to 24" in diameter from the new well site to the existing Well 17 forebay.

Operation of the Project includes placing the well into operation and using same for extracting groundwater for distribution within DWA's potable water system.

Water resulting from development and testing of the well, and water resulting from periodic well purging during operation, will be discharged onsite to the pump-to-waste area and allowed to percolate.

2. Purpose

The purpose of the Project is to extract groundwater for use by DWA's customers within its service area. The Project is intended to improve water system operational flexibility by

strengthening the water supply in the Palm Oasis area and DWA's Main Pressure Zone within the City of Palm Springs.

C. ENVIRONMENTAL SETTING

1. Location

The Project is located in the community of Palm Oasis, in an unincorporated area of the County of Riverside, on the northerly slopes of the San Jacinto Mountains. The Project is located on four existing DWA-owned parcels collectively referred to herein as the Project Site, as further described below. Refer also to **Figures 1 through 3** herein.

The northern area of the site is located south of State Route 111 and Range View Drive, north of Palm Oasis Avenue, and southeast of Margee Road, near the City of Palm Springs, in an unincorporated area of Riverside County, California. The northern area of the site is identified as Assessor's Parcel Number (APN) 669-680-024, is owned by DWA, and has a recorded land area of 5.18 acres.

The southern area of the site adjoins the aforementioned parcel on the south, is north of Palm Oasis Avenue, and includes existing water system facilities owned and operated by DWA. The southern area of the site comprises three parcels, identified as APNs 669-191-005, 669-191-006, and 669-191-009, with a combined recorded land area totaling 0.55 acre.

2. Climate

Climate in DWA's service area is characterized by low humidity, high summer temperatures, and mild dry winters. The area normally receives an average annual precipitation of approximately 5.5 inches, most of which occurs during December through February (except for summer thundershowers).

Prevailing winds in the area are usually gentle but occasionally increase to velocities as high as 50 to 60 miles per hour or more. Midsummer temperatures commonly exceed 100 degrees Fahrenheit (°F), frequently reach 110°F, and periodically reach 120°F. The average winter temperature is approximately 60°F.

3. Land Use

The northern area of the Project Site is currently undeveloped, and the southern area of the Project Site contains existing water system facilities that are owned and operated by DWA. The Project Site is bounded by Range View Drive and State Route 111 to the north and residential and open space uses to the west, east, and south.

D. COMPLIANCE WITH CEQA

This document has been prepared in compliance with the provisions of the California Environmental Quality Act, codified in California Public Resources Code, Division 13, Section 21000 *et seq* (CEQA), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq*), and DWA's Local Guidelines for Implementing the California Environmental Quality Act (2022). Pursuant to CEQA and the State CEQA Guidelines, this Initial Study has been prepared to determine whether the Project may have a significant effect on the environment.

This Initial Study for DWA's Well 46 project has been prepared by Krieger & Stewart, Incorporated under contract with DWA to comply with the provisions of CEQA.

E. LEAD AGENCY

DWA is lead agency for the Project, as it is the public agency with the primary responsibility for preparing CEQA documents and for carrying out and approving the Project. Since DWA is responsible for the Project, it must comply with the requirements of CEQA and the CEQA Guidelines issued by the State of California.

DWA routinely constructs new facilities, maintains them, and replaces them as necessary to maintain adequate, reliable, and safe domestic water service to its customers. The Project is a continuation of the authority that the DWA has exercised in the past.

F. PUBLIC INFORMATION DOCUMENT

This is a public information document prepared in accordance with CEQA and the State CEQA Guidelines. The purposes of this Initial Study are to provide DWA with information to use as a basis for identifying the potential environmental impacts of the Project, for determining the appropriate CEQA document to prepare for the Project, to facilitate environmental assessment of the Project, and to provide documentation of the factual basis for the finding in the Project's CEQA document. Additionally, this document identifies mitigation intended to avoid or reduce any adverse environmental impacts of the Project to levels that are less than significant.

PART 2
ENVIRONMENTAL EFFECTS AND CHECKLIST

PART 2 - ENVIRONMENTAL EFFECTS AND CHECKLIST

A. PROJECT INFORMATION

1. Project Title:

Well 46 (Palm Oasis)

2. Lead Agency Name and Address:

Desert Water Agency
1200 S. Gene Autry Trail
Palm Springs, CA 92264

3. Contact Person and Phone Number:

Ryan Molhoek, Senior Engineer
Desert Water Agency
(760) 323-4971

4. Project Location:

Refer to **Part 1.C(1)** on **Page 3** herein. Refer also to **Figures 1 through 3** herein.

5. Project Sponsor's Name and Address:

Desert Water Agency
1200 S. Gene Autry Trail
Palm Springs, CA 92264

6. General Plan Designation:

Northern Parcel:	MDR (Medium Density Residential)
Southern Parcels:	MDR (Medium Density Residential)

7. Zoning:

Northern Parcel:	W-2 (Controlled Development Areas)
Southern Parcels:	C-P-S (Scenic Highway Commercial)

8. Description of Project:

Refer to **Part 1.B**, beginning on **Page 1** herein.

9. Surrounding Land Uses and Setting:

Refer to **Part 1.C(2)** and **Part 1.C(3)**, beginning on **Page 3** herein.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- State Water Resources Control Board, Division of Drinking Water
- Riverside County Department of Environmental Health
- California Regional Water Quality Control Board, Colorado River Basin Region

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

On April 24, 2023, DWA sent formal notification letters to the following Native American tribes, using a list of contact information provided by the Native American Heritage Commission for the Project:

- Ramona Band of Cahuilla Indians
- San Manuel Band of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Serrano Nation of Mission Indians
- Soboba Band of Luiseno Indians
- Torres-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians
- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Morongo Band of Mission Indians
- Quechan Tribe of the Fort Yuma Reservation

On April 26, 2023, DWA received a letter from a representative of the Agua Caliente Band of Cahuilla Indians (Agua Caliente), stating that the Project is located within the boundaries of Agua Caliente's Traditional Use Area. In the letter, Agua Caliente requested the presence of an Agua Caliente Native American Cultural Resource Monitor during ground disturbing activities as well as copies of any cultural resources documentation, records search, survey reports, and site records in connection with the Project. The requested documents and records were provided to Agua Caliente via email by CRM TECH on June 14, 2023. DWA will allow a tribal monitor to be present on the Project site during construction to observe ground-disturbing activities.

On April 26, 2023, DWA received an email from a representative of the Yuhaaviatam of San Manuel Nation stating that the Project is located outside of Serrano ancestral territory and that they will not be requesting consultation on the Project.

On May 8, 2023, DWA received an email from a representative of the Fort Yuma Quechan Indians stating that the tribe does not wish to comment on the Project.

DWA did not receive a request for consultation on the Project from any tribe.

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- ❑ Aesthetics
- ❑ Agriculture/Forestry Resources
- ❑ Air Quality
- ❑ Biological Resources
- ❑ Cultural Resources
- ❑ Energy
- ❑ Geology/Soils
- ❑ Greenhouse Gas Emissions
- ❑ Hazards & Hazardous Materials
- ❑ Hydrology/Water Quality
- ❑ Land Use/Planning
- ❑ Mineral Resources
- ❑ Noise
- ❑ Population/Housing
- ❑ Public Services
- ❑ Recreation
- ❑ Transportation
- ❑ Tribal Cultural Resources
- ❑ Utilities/Service Systems
- ❑ Wildfire
- ❑ Mandatory Findings of Significance
- ☒ None

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

On the basis of this initial evaluation:

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

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

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

❑ I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

❑ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

November 17, 2023

David F. Scriven
KRIEGER & STEWART, INCORPORATED
Agency Consulting Engineer
DESERT WATER AGENCY

Date

D. EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (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 "Earlier Analyses", as described in (5) below, 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 Analyses Used. Identify and state where they are available for review.

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

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

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

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

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

9. The explanation of each issue should identify:

a. The significance criteria or threshold, if any, used to evaluate each question; and

b. The mitigation measure identified, if any, to reduce the impact to less than significant.

E. ENVIRONMENTAL CHECKLIST

Issue I. Aesthetics

Except as provided in Public Resources Code Section 21099, would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	❑	❑	❑	☒

*The Project and its associated features and appurtenances will be located on DWA's existing properties, as described in **Part 1.C** of this Initial Study. The Project consists of belowground facilities (e.g. well, piping, valves, etc.) and low-lying structures (e.g. access road, pumping units, enclosure for protection of aboveground facilities, electrical switchgear, power transformer, and power service disconnect). The Project Site is not part of a scenic vista and the proposed facilities will not obstruct public views of a designated scenic vista. For these reasons, the Project will not have a substantial adverse effect on a scenic vista.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	❑	❑	❑	☒

*There are no "Officially Designated State Scenic Highways" within close proximity to the Project Site. State Route 111, which is located just north of the Project Site, is listed as an "Eligible State Scenic Highway". The nearest Officially Designated State Scenic Highway is State Route 62, which was designated in 1972 and is located approximately 1.7 miles northeasterly of the Project Site. The Project consists of low-lying and belowground facilities and would not substantially damage any scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway. Refer also to **Issue I(a)** above.*

Issue I. Aesthetics (continued)

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 a 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?	Potentially Significant Impact ❑	Less Than Significant with Mitigation Incorporated ❑	Less Than Significant Impact ❑	No Impact ☒

The Project Site is surrounded by open space and residential uses. The southern area of the Project Site includes existing water system facilities, while the northern area of the site is undeveloped. Project facilities include low-lying and belowground structures that will not substantially degrade the existing visual character or quality of public views of the site and its surroundings. For these reasons, construction and operation of the Project facilities will not conflict with applicable zoning or other regulations governing scenic quality.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially Significant Impact ❑	Less Than Significant with Mitigation Incorporated ☒	Less Than Significant Impact ❑	No Impact ❑

The Project may include lighting at the new well site for use in the event that operation or maintenance activities need to be conducted at the facilities outside of daylight hours. Said lights would be shielded and directed downward and toward Project facilities within the Project Site. Any lights installed at the Project Site will not be directed toward surrounding properties or upward toward the night sky. Project lighting would not be significant considering other existing light sources in the immediate vicinity, such as street lights, lights from nearby residences, and vehicle lights from surrounding roadways, including State Route 111. Site lighting will be minimized to the extent practicable, while still providing for safety and security at the Project Site. To further reduce the potential for adverse impacts, Mitigation Measure AES-1 is incorporated into the Project. Mitigation Measure AES-1 is summarized below and is set forth in the Mitigation Monitoring and Reporting Program attached to the Mitigated Negative Declaration in ***Appendix A*** *herein. For these reasons, the Project will not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.*

Mitigation Measure AES-1: Nighttime Lighting

Throughout construction and the lifetime operations of the Project, DWA will eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light at night during the

hours of dawn and dusk when many wildlife species are most active. DWA will ensure that all lighting for the Project is fully shielded, cast downward, reduced in intensity to the greatest extent, and does not result in lighting trespass including glare into surrounding areas, including the Whitewater Floodplain Conservation Area or upward into the night sky. DWA will ensure use of LED lighting with a correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler.

Issue 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.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Would the project 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?	❑	❑	❑	☒

Based on maps available from the State of California Department of Conservation, Division of Land Resources Protection, Farmland Mapping and Monitoring Program, online at https://maps.conservation.ca.gov/DLRP/CIFF, the Project Site located within areas of land categorized as "Other Land" and "Urban and Built-Up Land", which are defined below.

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

***Urban and Built-Up Land** is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control systems.*

There is no land categorized as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (collectively, Farmland) located on or adjacent to the Project Site. For these reasons, construction and operation of the Project will not convert Farmland to non-agricultural use.

Issue II. Agriculture and Forest Resources (continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	❑	❑	❑	☒

The Project Site is not zoned for agricultural use, and there are no Williamson Act contracts in effect on any of the parcels included in the Project Site. For these reasons, the Project will not conflict with existing zoning for agricultural use or with a Williamson Act Contract.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	❑	❑	❑	☒

The Project Site consists of DWA-owned properties in the Palm Oasis area of DWA's service area. The southern area of the site is occupied by existing DWA water system facilities, while the northern area of the site is undeveloped. There are no lands zoned for forest land or timberland located on or adjacent to the Project Site. For these reasons, construction and operation of the Project will not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?	❑	❑	❑	☒

The Project Site does not contain nor adjoin any forest land. Therefore, construction and operation of the Project will not result in the loss of forest land or conversion of forest land to non-forest use. Refer also to ***Issue II(c)*** *above.*

Issue II. Agriculture and Forest Resources (continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project 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?	❑	❑	❑	☒

The Project does not involve changes in the existing environment that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. Refer also to ***Issues II(a) through II(d)****, above.*

Issue 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project conflict with or obstruct implementation of the applicable air quality plan?	❑	❑	❑	☒

The Project is located within the Salton Sea Air Basin (SSAB), which encompasses all of Imperial County and the Central Part of Riverside County, extending from the San Jacinto Mountains on the west to the Little San Bernardino Mountains on the east. The Riverside County portion of the SSAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

A project is considered to conflict with or obstruct implementation of the applicable air quality plan if it would result in population or employment growth that would exceed the estimates for such growth that are set forth in the applicable air quality plan.

The Project will be operated as part of DWA's existing water system, and the Project does not have the potential to result in an increase in population and employment growth in the area. For these reasons, the Project would not conflict with or obstruct any applicable air quality plan.

Potential impacts related to greenhouse gases are described in ***Issue VIII*** *herein.*

Issue III. Air Quality (continued)

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality threshold?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	❑	❑	☒	❑

*As described in **Issue III(a)** above, the Project is located within the Salton Sea Air Basin (SSAB). Air quality conditions in the SSAB are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).*

State and federal designations based on the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) for the project area are listed below. "Attainment" is the category given to an area that has had no CAAQS or NAAQS violations in the past 3 years. "Non-Attainment" is the category given to an area that has had one or more such violations in the past 3 years. An area is considered "Unclassified" when there is insufficient data.

Under the CAAQS, the Project area is classified as Non-Attainment for ozone (O_3) and for particulate matter measuring greater than 2.5 microns and up to 10 microns in diameter (PM_{10}). The Project area is classified as Attainment for particulate matter measuring 2.5 microns or less in diameter ($PM_{2.5}$), for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), sulfates (SO_4), and lead. Additional information about each of these pollutants and the CAAQS is available at the California Air Resources Board website at www.arb.ca.gov/resources/california-ambient-air-quality-standards.

Under the NAAQS, the Project area is classified as Non-Attainment for Ozone (O_3) and PM_{10}, and as Unclassified/Attainment for $PM_{2.5}$, CO, NO_2, SO_2, and lead. Additional information about these pollutants and the NAAQS is available on the United States Environmental Protection Agency's website at www.epa.gov/criteria-air-pollutants.

*Project construction air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod, 2022.1). A copy of the CalEEMod report for the Project is included in **Appendix D** herein. Peak day air pollutant emissions estimated to be generated during construction are set forth in **Table 1** below.*

Table 1 Estimated Peak Day Construction Equipment Exhaust Emissions for Construction of Well 46 (Palm Oasis)						
	Pollutants (pounds/day[1])					
	VOC	NO_X	CO	SO_x	PM_{10}	$PM_{2.5}$
Project Construction Emissions	**4.05**	**39.8**	**37.5**	**0.05**	**21.7**	**11.8**
SCAQMD Significance Thresholds[2]	**75**	**100**	**550**	**150**	**150**	**55**

(1) Peak day

(2) SCAQMD, March 2023

Construction activities will result in a temporary increase in quantities of air pollutants in the Project area, including airborne dust, resulting from operation of construction vehicles and equipment. Dust will be mitigated to the extent possible using dust palliatives (such as water) and best management practices (BMPs) specified in the construction contract documents for the Project. Air pollutant emissions resulting from Project construction are well below the significance thresholds established by SCAQMD and will be short-term.

Ongoing operation of the Project will generate small quantities of air pollutant emissions resulting from daily DWA vehicle trips to the Project Site for routine operation and maintenance; however, said daily vehicle trips are already taking place as part of operation and maintenance of the existing water system facilities on the southern area of the site. Therefore, Project operation would not result in an increase in vehicle trips or air pollutant emissions over existing conditions.

For the reasons described above, air pollutant emissions generated by construction and operation of the Project will be less than significant and will not result in an increase in O_3 or PM_{10}, for which the Project area is designated Non-Attainment under the CAAQS and the NAAQS.

Issue III. Air Quality (continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project expose sensitive receptors to substantial pollutant concentrations?	❑	❑	☒	❑

*The sensitive receptors nearest the Project Site are residences on surrounding properties. Quantities of air pollutant emissions will temporarily increase during Project construction; however, as described in **Issue III(b)** herein, said increases will be less than significant and short-term, with construction expected to occur in phases and emissions ceasing upon completion of each phase. Ongoing operation of the Project will not result in an increase in air pollutant emissions over current conditions. For these reasons, construction and operation of the Project will not expose sensitive receptors to substantial pollutant concentrations.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	❑	❑	❑	☒

Project construction will not result in emissions other than those described above, and the Project will not result in odors adversely affecting a substantial number of people. Operation of the Project will not generate other emissions, including those leading to odors. For these reasons, the Project will not result in other emissions, such as those leading to odors, adversely affecting a substantial number of people.

Issue IV. Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	❑	☒	❑	❑

Certain species of plants and animals have low populations, limited distributions, or both. Such species are vulnerable to further declines in population and distribution and may be subject to extirpation as the human population grows and the habitats these species occupy are converted to urban or other uses. State and federal laws, particularly the Federal Endangered Species Act (FESA) and the California

Endangered Species Act (CESA) provide the California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Service (USFWS) with mechanisms for conserving and protecting native plant and animal species. Many plants and animals have been formally listed as "Threatened" or "Endangered" under FESA, CESA, or both, while many others have been designated as candidates for such listing. Additionally, others have been designated as "Species of Special Concern" by CDFW, as "Species of Concern" by USFWS, or are on lists of rare, threatened or endangered plants developed by the California Native Plant Society (CNPS). Collectively, all of these listed and designated species are referred to as "special status species".

The Federal Migratory Bird Treaty Act (MBTA), codified in 50 CFR Section 10.13, makes it unlawful to "take" (i.e. harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect) migratory birds or their nests, eggs, feathers, or any part thereof. With few exceptions, all native bird species are protected by the MBTA. Birds protected under the MBTA are also referred to as "special status species".

LSA Associates, Inc. (LSA) performed a biological resources assessment and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) consistency analysis of the Project Site, the findings and recommendations of which are set forth in the report titled, Biological Resources Assessment and CVMSHCP Consistency Analysis, Palm Oasis Well Project, Riverside County, California, dated July 2023 (Biological Report). A copy of the Biological Report is included in ***Appendix B*** *herein. The following summary is based on the Biological Report.*

In addition to nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Game Code, special status species that may occur on the Project Site include the Palm Springs round-tailed ground squirrel (Xerospermophilus tereticaudus chlorus), burrowing owl (Athene cunicularia hypugaea), flat-tailed horned lizard (Phrynosoma mcalli), and Coachella Valley milkvetch (Astragalus lentiginosus var. coachellae).

- ***Palm Springs Round-Tailed Ground Squirrel***

  The Palm Springs round-tailed ground squirrel is designated as a California Species of Special Concern and is not a state or federally-listed species. The squirrel has a moderate probability of occurring on the Project Site due to the presence of suitable habitat (desert scrub and sandy soils) and records of this species in the area; however, due to onsite disturbance and existing residential development in the area, the Project Site does not provide long-term conservation value for this species. Further, habitats onsite are relatively widespread in the region. For these reasons, any project effects to this species are not considered significant.

- ***Flat-Tailed Horned Lizard***

  Flat-tailed horned lizard is designated as a California Species of Special Concern and has a low probability of occurrence on the Project Site. Habitat onsite is marginal for this lizard due to onsite disturbance and the effects of nearby residential development; therefore, the Project Site does not provide long-term conservation value for this lizard. Further, habitats onsite are relatively widespread in the region. For these reasons, any project effects to this species are not considered significant.

- ***Coachella Valley Milkvetch***

  The Coachella Valley milkvetch is listed as endangered under FESA and is listed as "California Rare Plant Rank 1B: rare, threatened, or endangered in California and elsewhere. The Coachella Valley milkvetch was not observed on the Project site during the biological survey on November 15, 2022 nor during a subsequent visit by a biologist on May 26, 2023. Milkvetch is not expected to occur on the Project Site due to marginally suitable habitat, onsite disturbance, and the effects of nearby residential development. The Project Site does not provide long-term conservation value for the milkvetch, and no Project impacts to this species are expected.

- ***Burrowing Owl***

  Burrowing owl is protected under the federal Migratory Bird Treaty Act and is designated as a California Species of Special Concern and has a low probability of occurring at the Project Site. Habitat on the Project Site is considered marginal due to the effects of nearby residential development. To avoid or reduce potential impacts on burrowing owl, Mitigation Measure BIO-1 is included in the Project. Mitigation Measure BIO-1 is summarized below and is set forth in the Mitigation Monitoring and Reporting Program included in ***Appendix A*** *herein.*

- ***Nesting Birds***

  The Project Site provides suitable habitat for nesting birds protected by the Migratory Bird Treaty Act, the California Fish and Game Code, or both. In order to avoid or reduce potential impacts to nesting birds, Mitigation Measure BIO-2 is included in the Project. Mitigation Measure BIO-2 is summarized below and is set forth in the Mitigation Monitoring and Reporting Program included in ***Appendix A*** *herein.*

With incorporation of Mitigation Measures BIO-1 and BIO-2, the Project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species.

Mitigation Measure BIO-1: Burrowing Owl

Focused burrowing owl surveys will be conducted in accordance with the California Department of Fish and Wildlife (CDFW) Staff Report on Burrowing Owl Mitigation (2012 or most recent version). If burrowing owls are detected during the focused surveys, the qualified biologist and DWA will prepare a Burrowing Owl Plan that will be submitted to CDFW for review and approval prior to commencing construction activities.

The Burrowing Owl Plan will describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan will include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers, and other avoidance measures if avoidance is proposed.

If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan will also describe minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated, as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take.

The Burrowing Owl Plan will identify compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the Staff Report on Burrowing Owl Mitigation (2012 or most recent version) and shall implement CDFW-approved mitigation prior to initiation of Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. DWA will implement the Burrowing Owl Plan following CDFW and USFWS review and approval.

Preconstruction burrowing owl surveys will be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version).

Preconstruction surveys will be performed whether or not burrowing owls were detected during the focused surveys. Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities will be immediately halted. The qualified biologist will coordinate with CDFW and prepare a Burrowing Owl Plan that will be submitted to CDFW and USFWS for review and approval prior to commencing Project activities.

Mitigation Measure BIO-2: Nesting Birds

Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts.

If active nests are found during the preconstruction nesting bird surveys, a qualified biologist will establish an appropriate nest buffer to be marked on the ground. Nest buffers are species-specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

Issue IV. Biological Resources (continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	❑	❑	❑	☒

*Based on the Biological Report cited in **Issue IV(a)**, there are no riparian habitats or natural communities of concern located on the Project Site. Existing groundwater levels in the Project area, based on 2022 data for DWA's two nearest wells, range from 368 to 390 feet below ground surface and are too deep to provide a benefit to groundwater-dependent ecosystems or species, including peninsular bighorn sheep. The Project will not result in substantially lowering groundwater levels in the Project area and will not impact the growth of vegetation outside the Project Site. For these reasons, the Project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community or species.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	❑	❑	❑	☒

*Based on the Biological Report cited in **Issue IV(a)** above, there are no wetlands or stream courses located on or adjacent to the Project Site. Therefore, construction and operation of the Project will not have a substantial adverse effect on state or federally protected wetlands.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❑	❑	❑	☒

*Based on the Biological Report cited in **Issue IV(a)** herein, the Project Site is not located within a CVMSHCP-designated wildlife corridor and is not anticipated to result in significant effects related to habitat fragmentation and regional wildlife movement. While local wildlife movement may be temporarily disrupted during the Project's vegetation removal and construction activities, any effects would be localized and short-term and are not considered significant.*

Issue IV. Biological Resources (continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❑	❑	❑	☒

The County of Riverside's Oak Tree Management Guidelines and County Ordinance No. 559 regulate tree removal for unincorporated areas of Riverside County. Based on the Biological Report cited in ***Issue IV(a)*** *herein, the Project Site does not include any trees subject to the County's Oak Tree Management Guidelines or County Ordinance No. 559. Therefore, no trees subject to a tree preservation policy or ordinance will be removed. The Project will not conflict with any local policies or ordinances protecting biological resources.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	❑	❑	❑	☒

The Project Site is located within the planning area of the CVMSHCP; however, it is not located within or adjacent to a conservation area. DWA is not a signatory to the CVMSHCP, and DWA has elected not to apply for status as a Participating Special Entity of the CVMSHCP. The Project would not conflict with the provisions of any habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Issue V. Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	❑	❑	☒	❑

CEQA Guidelines Section 15064.5(3) states, in part, that "Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the

California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852), including the following:

> *"(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
>
> *(B) Is associated with the lives of persons important in our past;*
>
> *(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
>
> *(D) Has yielded, or may be likely to yield, information important in prehistory or history."*

Further, California Public Resources Code Section 5020.1(j) states that"a 'Historical resource' includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

CRM TECH performed a historical and archaeological resources survey of the Project site, the methods, results, and recommendations of which are set forth in the report, Historical/Archaeological Resources Survey Report Palm Oasis Well Project, Near the City of Palm Springs, California, dated March 20, 2023 (CRM TECH Report), a copy of which is included in ***Appendix C*** *herein.*

As part of its historical and archaeological resources study of the Project site, CRM TECH conducted an intensive-level field survey of the Project area, reviewed the results of previously completed historical and archaeological resources records searches in the Project vicinity, and contacted the Native American Heritage Commission to request a search of the Sacred Lands File.

Based on the CRM TECH Report, no historical or archaeological resources were found to be present on or adjacent to the Project Site. To avoid or reduce potential impacts on previously-undiscovered cultural resources during ground-disturbing activities, Mitigation Measure CUL-1 is incorporated into the Project. Mitigation Measure CUL-1 is summarized below and is set forth in the Mitigation Monitoring and Reporting Program for the Project, which is included in ***Appendix A*** *herein. With incorporation of Mitigation Measure CUL-1, the Project will not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.*

Mitigation Measure CUL-1: Cultural Resources

In the event that any object uncovered during Project construction activities appears to be a historical or archaeological artifact (or appears to be older than 40 years), all work within fifty (50) feet of the discovery shall be immediately halted or diverted, and the following steps shall be taken:

- *The construction contractor shall halt all work within a 50-foot radius of the discovery. Work outside the 50-foot radius may continue.*
- *The construction contractor shall immediately contact Desert Water Agency (DWA) via telephone to notify DWA of the find.*
- *DWA will contact a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualifications Standards to evaluate the nature and significance of the find.*
- *If the qualified archaeologist determines that the find is not a significant historical or archaeological resource, then construction may resume with approval of DWA.*
- *If the qualified archaeologist determines that the find is a significant historical or archaeological resource, then construction shall not resume within the 50-foot radius of the discovery until a plan has been developed to preserve or protect the resource as appropriate and as determined by DWA in collaboration with the qualified archaeologist.*

Issue V. Cultural Resources (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	❑	❑	☒	❑

*Refer to **Issue V(a)** above. The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. Potential impacts upon tribal cultural resources are described in **Issue XVIII** herein.*

Issue V. Cultural Resources (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	❑	❑	❑	☒

There are no known cemeteries or burial grounds located on or adjacent to the Project Site. To avoid or reduce potential impacts upon any human remains that may be inadvertently encountered during Project construction, Mitigation Measure CUL-2 is incorporated into the Project. Mitigation Measure CUL-2 is summarized below and is set forth in the Mitigation Monitoring and Reporting Program for the Project, which is included in ***Appendix A*** *herein. Additionally, the Project will comply with the provisions of Section 15064.5 of the State CEQA Guidelines.*

Mitigation Measure CUL-2: Human Remains

In the event that any human remains, or what appear to be human remains, are uncovered or encountered during Project construction, the construction contractor will halt or divert all work and will immediately notify the Riverside County Coroner's Office via telephone. After notifying the County Coroner, the contractor will also notify Desert Water Agency (DWA) via telephone. In the event that the remains are determined to be of Native American origin, Desert Water Agency will contact the Native American Heritage Commission to determine the appropriate disposition of the remains. Construction activities will not resume in the area of the find until DWA notifies the construction contractor to proceed.

Issue VI. Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	❑	❑	❑	☒

The primary energy resource that will be consumed during construction of the Project is fuel needed by the construction contractor for operating construction vehicles and equipment. Operation of the Project will require fuel for travel of one DWA vehicle trip to the Project Site daily; however, this vehicle trip is already taking place for operation of the existing facilities on the southern area of the Project Site. Electric power will be used for operation of the well pumping equipment, electrical switchgear, controls, and telemetry system. This energy use is needed for operation of the well. For these reasons, the Project

will not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.

Issue VI. Energy (continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	❑	❑	❑	☒

Construction and operation of the Project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Refer also to ***Issue VI(a)*** *above.*

Issue VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	❑	❑	❑	☒
ii) Strong seismic ground shaking?	❑	❑	❑	☒
iii) Seismic-related ground failure, including liquefaction?	❑	❑	❑	☒
iv) Landslides?	❑	❑	❑	☒

i) Based on information available in the online mapping system, "Earthquake Zones of Required Investigation", provided by the California Geological Survey on its website at http://conservation.ca.gov/cgs/geohazards/eq-zapp, the Project Site is not located within an earthquake fault zone. The nearest fault, Garnet Hill Fault, is within the San Andreas Fault Zone and is located approximately 2 miles northerly of the Project Site. Construction and operation of the Project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault.

ii) Being located in seismically-active southern California, the Project Site is subject to strong seismic ground shaking. The Project does not include any structures intended for human

occupancy, and Project facilities will be designed and constructed in accordance with the recommendations provided in a geotechnical study report, which will be completed during the Project design process. For these reasons, construction and operation of the Project is not expected to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

iii) *Based on "Figure 14, Seismic Hazards" of the County of Riverside General Plan, Western Coachella Valley Area Plan, dated September 28, 2021, the Project Site is located in an area mapped as having moderate susceptibility to liquefaction with deep groundwater susceptible sediments. Because the Project does not include facilities intended for human occupation, the Project will not expose people or structures to potential substantial adverse effects, including seismic-related ground failure, such as liquefaction.*

iv) *Based on information available in the online map titled "CGS Information Warehouse: Landslides", provided by the California Geological Survey, there are no landslides mapped in the vicinity of the Project Site. The nearest area shown on the map to include landslide hazards is approximately 23 miles westerly of the Project Site. Further, the Project Site is located on relatively flat, alluvial topography and is not subject to landslides. For these reasons, the Project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.*

Issue VII. Geology and Soils (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project result in substantial soil erosion or the loss of topsoil?	❑	❑	❑	☒

Besides the areas occupied by aboveground facilities, disturbed ground surfaces will be returned to near-preconstruction conditions after Project construction, and no erosion related to the Project is expected to occur after completion of construction and final site stabilization. For this reason, and because the Project Site is relatively flat, the Project would not result in substantial soil erosion or substantial impacts related to the loss of topsoil.

Issue VII. Geology and Soils (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	❑	❑	❑	☒

According to information available on the Riverside County "Map My County" online information system, accessed on January 19, 2023, the Project Site is located in an area mapped as susceptible to subsidence and as having moderate susceptibility to liquefaction.

The Project does not include facilities whose construction and operation are capable of causing on- or off-site landslide, lateral spreading, liquefaction, or collapse.

Significant depression of groundwater levels could potentially result in land subsidence. The construction and operation of the proposed domestic water well pumping plant will increase DWA's groundwater production ***capacity****; however, actual groundwater* ***production*** *will only meet service area demands. Further, the proposed well is located close to the West Whitewater River Subbasin Groundwater Replenishment Facility, where water imported from the Colorado River Aqueduct and diverted from Snow and Falls Creeks is discharged and percolated into the aquifer, typically several times per year. The operation of this facility results in periodic increases in local groundwater levels during replenishment events. Thus, although operation of the well may result in localized and temporary lowering of groundwater levels, no net increase in groundwater production or long-term, significant lowering of groundwater levels is currently anticipated as a result of the Project.*

Therefore, construction and operation of the Project is not anticipated to result in any significant land subsidence.

For the above reasons, the Project will not expose people or critical structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving unstable geologic units or soils. Refer also to ***Issue VII(a)*** *above.*

Issue VII. Geology and Soils (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	❑	❑	❑	☒

Soils at the Project Site are fine to coarse sands and gravels. These sandy types of soils are not considered expansive. For these reasons, the Project will not create substantial direct or indirect risks to life or property related to expansive soil.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	❑	❑	❑	☒

The Project does not include septic tanks or alternative wastewater disposal systems.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❑	❑	☒	❑

Federal, state, and local regulations and policies provide protection for paleontological resources. These include, but are not limited to, the federal Paleontological Resources Preservation Act of 2009 (Public Law 111-011, Title VI, Subtitle D) and California Public Resources Code Section 30244.

Because soils on the Project Site consist of alluvial deposits, the area is not sensitive for paleontological resources, and no paleontological resources are known or expected to be present on the Project Site. Further, the Project Site does not contain any unique geologic features. For these reasons, no impacts to unique paleontological resources or unique geological features are anticipated.

To prevent an adverse impact upon any previously undiscovered paleontological resource that may be present in subsurface soil deposits, Mitigation Measure PALEO-1 is incorporated into the Project. Mitigation Measure PALEO-1 is summarized below and is set forth in the Mitigation Monitoring and Reporting Program for the Project, a copy of which is included in ***Appendix A*** *herein. With*

incorporation of PALEO-1, construction and operation of the Project would not directly or indirectly destroy a unique paleontological resource or geological feature.

Mitigation Measure PALEO-1: Paleontological Resources

The following measures will be implemented to protect any paleontological resources uncovered during ground disturbance at the Project Site:

- *If any potential paleontological resources are uncovered during Project construction, all work in the vicinity of the discovery shall be halted until a qualified paleontologist can evaluate the nature and significance of the find.*
- *If a qualified paleontologist determines that a specimen uncovered during Project construction is potentially significant, then all future ground-disturbing actions associated with the Project will be monitored by a qualified paleontological monitor.*
- *Specimens recovered from the Project Site by the qualified paleontological monitor will be, in accordance with standard paleontological practice, identified and curated at a repository with permanent retrievable storage that will allow for additional research in the future.*

Issue VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	❑	❑	☒	❑

Gases that trap heat in the Earth's atmosphere are referred to as greenhouse gases (GHGs). GHGs that are emitted due to human activities, primarily from the combustion of fossil fuels (e.g. gasoline in motor vehicles), are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). The most common GHG that results from human activities is CO_2, followed by CH_4 and N_2O, respectively.

To quantify and combine these three GHGs into a single figure, each gas is converted to "carbon dioxide equivalent" (CO_2e) units. CO_2e is defined by the United States Environmental Protection Agency (USEPA) as, "A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP)…The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP." The GWPs for carbon dioxide, methane, and nitrous oxide are 1, 25, and 298, respectively.

The Project is expected to generate GHGs during construction and operation. GHGs emitted during construction would result from operating construction vehicles and equipment and from workers' vehicles commuting to and from the Project Site. Estimated quantities of GHGs that would be generated during Project construction total approximately 5,600 metric tons of CO_2e per year, as determined by reports generated using the California Emissions Estimator Model (CalEEMod, Version 2022.1). A copy of the CalEEMod output report is included in ***Appendix D*** *herein.*

GHG's emitted during ongoing operation and maintenance would result from daily vehicle trips to and from the Project Site; however, since existing water system facilities are already located on the Project Site, the Project would not result in an increase in vehicle trips for ongoing operation and maintenance above existing conditions; therefore, there would be no impact.

SCAQMD has a significance threshold of 10,000 metric tons of CO_2e per year; therefore, project construction GHG emissions of 5,600 metric tons of CO_2e per year is not considered significant. Further, said construction GHG emissions are temporary and will not continue after completion of construction.

For the reasons described above, the Project will not generate GHG emissions that would, either directly or indirectly, have a significant impact on the environment.

Issue VIII. Greenhouse Gas Emissions (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases?	❑	❑	❑	☒

As described in ***Issue VIII(a)*** *above, construction of the Project would generate insignificant quantities of GHGs, while operation of the Project would not result in an increase in GHG emissions over existing conditions. For these reasons, construction and operation of the Project will not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions.*

Issue IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	❑	❑	❑	☒

Small quantities of fuel, lubricants, adhesives, paint, and coatings will be used during construction of the Project. Said use will be short-term and strictly controlled, and waste materials will be properly disposed of. Such materials will not be allowed to enter any drainage. The well pumping plant will include wellhead disinfection facilities, including tanks with secondary containment, a metering pump, and a residual monitor. Operation of the disinfection facilities and management of solution will be conducted in accordance with applicable OSHA and Cal-OSHA standards. Therefore, construction and operation of the Project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	❑	❑	❑	☒

The Project includes constructing and operating a domestic groundwater production well and pumping plant with disinfection facilities, along with associated controls, discharge piping, and appurtenances, for use in providing water within DWA's service area. The disinfection facilities will be equipped with secondary containment to prevent hazardous release. Therefore, the Project does not have the potential to 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. Refer also to Issue IX(a) *above.*

Issue IX. Hazards and Hazardous Materials (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	❑	❑	❑	☒

There are no schools located within one-quarter mile of the Project Site. The nearest school is located approximately 4.50 miles to the southeast, within the City of Palm Springs. Project construction and operation will take place within the existing Project Site and will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	❑	❑	❑	☒

The Project Site is not located on a site included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to maps and data available to the public on EnviroStor (the California Department of Toxic Substances Control (DTSC) database located online at http://www.envirostor.dtsc.ca.gov/public), there are no such sites located within a five-mile radius of the Project Site. For these reasons, the Project will not create a significant hazard to the public or the environment related to a hazardous materials site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	❑	❑	❑	☒

The nearest airport is the Palm Springs International Airport, located approximately six miles southeasterly of the Project Site. According to maps included in the Riverside County Airport Land Use Compatibility Plan Policy Document (adopted March 2005 by the Riverside County Airport Land Use Commission), the Project Site does not lie within a compatibility zone of the Palm Springs International Airport. The Project would not result in a safety hazard or excessive noise related to proximity to an airport.

Issue IX. Hazards and Hazardous Materials (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	☒

Transportation corridors will remain open during Project construction, and no lane or road closures are expected. Once construction is complete, there would be no additional vehicle trips to the Project Site over existing conditions. Therefore, construction and operation of the Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	❑	❑	☒	❑

Based on maps available on the Fire Hazard Severity Zone Viewer available on the California Department of Forestry and Fire Protection's Fire Resource and Assessment Program website (http://frap.fire.ca.gov), the Project Site is not located in, or adjacent to, an area designated as a moderate, high, or very high fire hazard severity zone. There is a slight risk of fire occurring during Project construction; however, the risk is less than significant and short-term. Additionally, construction contract documents for the Project will require construction contractors to comply with safety standards specified in Title 8 of the California Code of Regulations and that any equipment or machinery that poses a risk of emitting sparks or flame be equipped with an arrestor, thereby further limiting potential impacts. For these reasons, construction and operation of the Project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Issue X. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	❑	❑	❑	☒

The Project includes constructing and operating a domestic groundwater production well and pumping plant, along with associated controls, discharge piping, and appurtenances, for use in producing water to serve customers in DWA's service area. The Project will comply with all applicable water quality standards, waste discharge requirements, and all of the requirements of the California Regional Water Quality Control Board, Colorado River Basin Region (Regional Board). Discharges of well development and testing water to the proposed onsite pump-to-waste retention basin will be made under the provisions of Regional Board Order R7-2015-0006, NPDES No. CAG 997001, General Waste Discharge Requirements for Low Threat Discharges to Surface Waters Within the Colorado River Basin Region. For these reasons, the Project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	❑	❑	☒	❑

The proposed well is designed to extract between approximately 1,500 gallons per minute (gpm) and 4,000 gpm of groundwater from the aquifer underlying the local alluvial fan. The nearest existing active well is located within the southern area of the Project Site.

The construction and operation of the proposed domestic water well pumping plant will increase DWA's groundwater production ***capacity****; however, actual groundwater* ***production*** *will only meet service area demands.*

Furthermore, it has been DWA's practice since 1973 to augment groundwater pumped from the Whitewater River Subbasin with imported water by groundwater recharge via the West Whitewater River Subbasin Groundwater Replenishment Facility, located along the Whitewater River northwest of the City of Palm Springs, northerly of the Project Site to the north of State Route 111. Surface water diverted from Snow Creek and Falls Creek is also being recharged at said replenishment

facility. The recharge being performed there cooperatively by DWA and Coachella Valley Water District (CVWD) serves to reduce the effects of pumping throughout the northern Whitewater River Subbasin, including tributary areas, on existing wells. Over the long term, the water extracted by DWA, including by the proposed well, is not anticipated to exceed the amount being recharged by DWA, although some short-term variability is expected due to fluctuations in the availability of SWP water. It is DWA's goal to maintain constant long-term water levels throughout the groundwater basin.

Thus, although operation of the well may result in localized and temporary lowering of groundwater levels, no net increase in groundwater production or long-term, significant lowering of groundwater levels is currently anticipated as a result of the Project. Therefore, the Project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

Issue X. Hydrology and Water Quality (Continued)

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Result in substantial erosion or siltation on- or off-site?	❑	❑	☒	❑
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	❑	❑	☒	❑
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	❑	❑	❑	☒
iv) Impede or redirect flood flows?	❑	❑	❑	☒

i) The pump-to-waste area will somewhat alter the existing drainage pattern on the northern area of the Project Site. Stormwater entering the pump-to-waste area will be more likely to percolate onsite rather than flowing offsite; however, this will not result in substantial erosion or siltation on- or off-site. Therefore, drainage flow and pattern changes will be less than significant and will not result in substantial erosion or siltation on- or off-site.

ii) The Project will result in additional impervious surfaces on the Project site, including the enclosure/building for protection of aboveground well and concrete pads for electrical facilities (approximately 900 SF) and an access road with a driveway apron (approximately 3,600 SF). Project design includes adequate drainage features to accommodate the increase in stormwater

runoff onsite. Therefore, the Project will not result in flooding on- or off-site. Refer also to ***Issue X(c)(i)*** *above.*

iii) *The Project would not create or contribute any runoff water or result in stormwater runoff that would exceed the capacity of existing or planned drainage systems or provide substantial additional sources of polluted runoff. Refer also to* ***Issues X(c)(i)*** *and* ***X(c)(ii)*** *above.*

iv) *Project facilities do not have the potential to impede or redirect flood flows. Refer also to* ***Issues X(c)(i)*** *through* ***X(c)(iii)*** *above.*

Issue X. Hydrology and Water Quality (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	❑	❑	❑	☒

The Project Site is not located within a flood hazard, tsunami, or seiche zone. Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map No. 06065C0890G, effective 08/28/2008, the Project Site is located within an area mapped as Zone X, Areas of Minimal Flood Hazard. Based on the California Official Tsunami Inundation Maps available on the California Department of Conservation website at https://www.conservation.ca.gov/cgs/tsunami/maps, there are no tsunami inundation areas mapped within Riverside County. There are no water bodies of sufficient size located near the Project Site that would put the site at risk of a seiche. For these reasons, the Project is not at risk of inundation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	❑	❑	❑	☒

The water quality control plan applicable to the Project area is the Water Quality Control Plan for the Colorado River Basin Region, amended through January 8, 2019. The Project does not include features that will conflict with or obstruct water quality policies or objectives, and will not conflict with or obstruct implementation of the water quality control plan cited above.

The Sustainable Groundwater Management Act (SGMA) document applicable to the Project area is the 2022 Indio Subbasin Water Management Plan Update, Sustainable Groundwater Management Act Alternative Plan, dated December 2021. The Project does not conflict with or obstruct implementation of the provisions set forth in said SGMA alternative document.

For the reasons described above, the Project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Issue XI. Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project physically divide an established community?	❑	❑	❑	☒

The Project is located on existing DWA property and does not have the potential to physically divide an established community.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	❑	❑	❑	☒

The Project is being constructed on an existing DWA-owned site. Project construction and operation will take place within the bounds of the existing DWA-owned properties and will not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Issue XII. Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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?	❑	❑	❑	☒

Project facilities will be located within DWA's existing properties, which are not known to contain any mineral resources that would be of value to the region or to the residents of the state. The Project would not impact the availability of any known mineral resources or mineral resource recovery sites. For

these reasons, the Project would not 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.

Issue XII. Mineral Resources (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	❑	❑	❑	☒

The Project will not result in the loss of availability of a local-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Refer also to ***Issue XII(a)*** *above.*

Issue XIII. Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	❑	❑	☒	❑

The Project will generate noise during construction and operation of Project facilities. Noise generated during construction would be that resulting from construction equipment and from workers' vehicles commuting to and from the Project Site. Sound attenuation panels will be used during construction to reduce levels of construction noise perceptible outside of the Project Site.

An incremental increase in noise resulting from operation of Project facilities is anticipated to include noise generated by operation of the well pump and one daily DWA vehicle trip to the site. The residence nearest the well pump is located approximately 210 feet to the southwest. The well pump will be housed in an enclosure, which will dampen the volume of the well pump during operation, and the vehicle trip will not result in any perceptible noise over existing road traffic in the area. Construction and operation noise will comply with the Riverside County noise ordinance, "Ordinance No. 847 (As Amended through 847.1), An Ordinance of the County of Riverside Amending Ordinance No. 847 Regulating Noise".

For the reasons described above, the Project will not result in generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established for the area.

Issue XIII. Noise (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	❑	❑	❑	☒

The Project is not expected to result in excessive groundborne vibration or groundborne noise during Project construction or operation. Any groundborne vibration or groundborne noise generated during Project construction are not expected to be perceptible at any residences. Ongoing Project operation will not generate groundborne vibration or groundborne noise. For these reasons, the Project will not result in the generation of excessive groundborne vibration or groundborne noise levels. Refer also to ***Issue XIII(a)*** *above.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	☒

The airport nearest the Project Site is the Palm Springs International Airport, located approximately six miles southeasterly of the Project Site. Based on maps included in the Riverside County Airport Land Use Compatibility Plan Policy Document (adopted March 2005 by the Riverside County Airport Land Use Commission), the Project Site does not lie within a compatibility zone or a noise compatibility contour of the Palm Springs International Airport. For these reasons, the Project will not expose people residing or working in the Project area to excessive noise levels related to airports.

Issue XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	❑	❑	❑	☒

The Project is intended to improve water system operational flexibility by strengthening the water supply in the Palm Oasis area and DWA's Main Pressure Zone within the City of Palm Springs. The Project does not provide an additional water supply and would not induce substantial unplanned growth in the area. Further, the Project would not result in a need for DWA to hire additional employees. For these

reasons, the Project does not have the potential to induce population growth in the area, either directly or indirectly.

Issue XIV. Population and Housing (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	☒

The Project is located on existing DWA property, does not include the construction or destruction of any housing, and does not have the potential to displace any existing people or housing.

Issue XV. Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
i) Fire protection?	❑	❑	❑	☒
ii) Police protection?	❑	❑	❑	☒
iii) Schools?	❑	❑	❑	☒
iv) Parks?	❑	❑	❑	☒
v) Other public facilities?	❑	❑	❑	☒

i) The Project does not include any features or facilities that would require additional or unusual fire protection resources.

ii) The Project does not include any features or facilities that would require enhanced levels of police protection.

iii) The Project does not have the potential to increase or decrease the area's population and would therefore not result in a greater or lesser demand for schools. The Project will not adversely impact any school.

iv) The Project does not have the potential to increase or decrease the area's population, and therefore will not result in a greater or lesser demand for parks. The Project will not adversely impact any park.

v) The Project will not adversely affect other public facilities.

Issue XVI. Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	❑	❑	❑	☒

*Construction and operation of the Project do not have the potential to increase or decrease the area's population, and would therefore not result in increased or decreased use of parks or other recreational facilities. Refer also to **Issue XIV(a)** herein.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	❑	❑	❑	☒

The Project does not include recreational facilities and will not require the construction or expansion of any recreational facilities.

Issue XVII. Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	❑	❑	☒	❑

Minor, temporary impacts to traffic are expected to occur during construction of the Project due to workers' vehicles and construction vehicles and equipment at each Project Site; however, said impacts will be less than significant and short-term. Operation of the Project will not increase vehicle trips in the area above existing conditions because the DWA already visits the site daily for operation of existing DWA water system facilities on the site. For these reasons, construction and operation of the Project will not conflict with a program, plan, ordinance, or policy addressing the circulation system.

Issue XVII. Transportation (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	❑	❑	☒	❑

Construction of the Project is expected to result in approximately ten workers' vehicles traveling to and from the Project Site per day. For the purposes of this analysis, we have assumed that workers will commute a total of 40 miles per day each, round-trip, which results in a total of 400 vehicle miles traveled (VMT) per day during construction. This amount of daily VMT will only occur during Project construction and is not significant considering the existing traffic levels in the area and the short-term nature of construction. Operation of the Project is expected to require approximately one daily DWA vehicle trip to and from Project Site daily; however, these trips are an existing ongoing activity that is necessary for operation of the water system facilities on the site. Therefore, no increase in VMT will result from operation of the Project. For these reasons, construction and operation of the Project will not conflict or be inconsistent with CEQA Guidelines section 15064.3(b).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❑	❑	❑	☒

The Project will be constructed on an existing DWA site containing existing water system facilities. An access road within the Project Site is included in the Project. No road improvements or other facilities located outside of the Project Site are included in the Project. Therefore, construction and operation of the Project will not substantially increase hazards due to a geometric design feature or incompatible uses.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project result in inadequate emergency access?	❑	❑	❑	☒

Project facilities will be located within existing DWA properties and will not result in inadequate emergency access at the Project Site or in the local vicinity.

Issue XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	❑	❑	❑	☒
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	❑	☒	❑	❑

i) *Based on the cultural resources report prepared by CRM TECH, cited in **Issue V(a)** herein and included in **Appendix C**, there are no known tribal cultural resources or other cultural resources on the Project site that are 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). Therefore, construction and operation of the Project will not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). Refer also to **Issue V(a)** herein.*

ii) *On April 24, 2023, DWA sent formal notification letters to the following Native American tribes, using a list of contact information provided by the Native American Heritage Commission for the Project:*

- *Ramona Band of Cahuilla Indians*
- *San Manuel Band of Mission Indians*
- *Santa Rosa Band of Cahuilla Indians*
- *Serrano Nation of Mission Indians*
- *Soboba Band of Luiseno Indians*
- *Torres-Martinez Desert Cahuilla Indians*

- *Twenty-Nine Palms Band of Mission Indians*
- *Agua Caliente Band of Cahuilla Indians*
- *Augustine Band of Cahuilla Mission Indians*
- *Cabazon Band of Mission Indians*
- *Cahuilla Band of Indians*
- *Los Coyotes Band of Cahuilla and Cupeño Indians*
- *Morongo Band of Mission Indians*
- *Quechan Tribe of the Fort Yuma Reservation*

On April 26, 2023, DWA received a letter from a representative of the Agua Caliente Band of Cahuilla Indians (Agua Caliente), stating that the Project is located within the boundaries of Agua Caliente's Traditional Use Area. In the letter, Agua Caliente requested the presence of an Agua Caliente Native American Cultural Resource Monitor during ground disturbing activities as well as copies of any cultural resources documentation, records search, survey reports, and site records in connection with the Project. The requested documents and records were provided to Agua Caliente via email by CRM TECH on June 14, 2023. DWA will allow a tribal monitor to be present on the Project site during construction to observe ground-disturbing activities.

On April 26, 2023, DWA received an email from a representative of the Yuhaaviatam of San Manuel Nation stating that the Project is located outside of Serrano ancestral territory and that they will not be requesting consultation on the Project.

On May 8, 2023, DWA received an email from a representative of the Fort Yuma Quechan Indians stating that the tribe does not wish to comment on the Project.

DWA did not receive a request for consultation on the Project from any tribe.

Based on the cultural resources report prepared by CRM TECH, cited in ***Issue V(a)*** *and a copy of which is included in* ***Appendix C*** *herein, there are no known tribal cultural resources or other cultural resources on the Project site that are 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). However, in order to avoid or reduce potential impacts upon tribal cultural resources that may be present onsite but not yet discovered, Mitigation Measure TCR-1 is incorporated into the Project. Mitigation Measure TCR-1 is*

summarized below and is set forth in the Mitigation Monitoring and Reporting Program for the Project, a copy of which is included in ***Appendix A*** *herein.*

Mitigation Measure TCR-1: Tribal Cultural Resources

DWA will allow a tribal monitor approved by the Agua Caliente Band of Cahuilla Indians to be present on the Project site during ground-disturbing activities. In the event that any potential tribal cultural resource is discovered during ground-disturbing activities pursuant to the Project, DWA will contact a qualified archaeologist, meeting Secretary of the Interior's standards, to assess the find and determine the appropriate next steps. DWA will consult in good faith with the archaeologist and local tribes on the disposition and treatment of any artifacts or other cultural materials encountered during activities pursuant to the Project.

Issue XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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 relocation or construction of which could cause significant environmental effects?	❑	❑	☒	❑

The Project consists of construction and operation of a domestic water supply well, as described in ***Part 1(B)*** *herein. While project facilities will include electric service as part of connection of the new well to DWA's existing telemetry system, piping, and appurtenances, these facilities will all be located within the existing DWA-owned Project Site and will not have a significant environmental impact.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	❑	❑	❑	☒

Water needed during construction, such as for dust control, will be available from DWA's existing water supplies, and construction water demand will be less than significant and short-term. Operation of the proposed well will involve production of groundwater from DWA's existing water supplies used to supply its service area. For these reasons, the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Issue XIX. Utilities and Service Systems (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❑	❑	❑	☒

The Project will not generate sanitary wastewater.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	❑	❑	☒	❑

Project operation will not generate solid waste. Small quantities of solid waste may be generated during Project construction; however, said quantities of solid waste would be minimal and would be recycled or accommodated by a local landfill. For these reasons, the project will not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure. Further, the Project will not otherwise impair the attainment of solid waste reduction goals.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	❑	❑	❑	☒

The Project will comply with all federal, state, and local statutes and regulations related to solid waste. Refer also to ***Issue XIX(d)*** *above.*

Issue XX. Wildfire

If the Project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	☒

Based on maps available on the California Board of Forestry and Fire Protection State Responsibility Area Viewer, the Project Site is not located within a state responsibility area (SRA) or a very high fire hazard severity zone. The Project is not located in or near any state responsibility areas or lands classified as very high fire hazard severity zones and does not have the potential to substantially impair an adopted emergency response plan or emergency evacuation plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Due to slope, prevailing winds, or other factors, would the project exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	❑	❑	❑	☒

The Project does not include habitable structures, and there would be no project occupants. Further, construction and operation of the Project will not exacerbate wildfire risks. Refer also to ***Issue XX(a)*** *above.*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	❑	❑	❑	☒

The Project does not require the installation or maintenance of associated infrastructure that will exacerbate fire risk or result in temporary or ongoing impacts to the environment related to fire risk. Refer also to ***Issue XX(a)*** *above.*

Issue XX. Wildfire (Continued)

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslide, as a result of runoff, post-fire slope instability, or drainage changes?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	❑	❑	❑	☒

The Project Site is relatively flat and, after completion of construction, disturbed surfaces not containing aboveground facilities will be returned to preconstruction conditions. Construction and operation of the Project will not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes.

Issue XXI. Mandatory Findings of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	❑	☒	❑	❑

- ***Biological Resources***

  *As described in **Issue IV** herein, the Project Site contains suitable or marginally suitable habitat for four special status species, namely, Palm Springs round-tailed ground squirrel, flat-tailed horned lizard, burrowing owl, and Coachella Valley milkvetch. The site also contains suitable habitat for nesting birds protected under the Migratory Bird Treaty Act, California Fish and Game Code, or both. Based on the Biological Report cited in **Issue IV(a)** herein, Palm Springs round-tailed ground squirrel, flat-tailed horned lizard, and Coachella Valley milkvetch are not expected to be present on the Project Site. Further, due to onsite disturbance and existing residential development in the area, the Project Site does not provide long-term conservation value for these three species, and no impacts are expected.*

  *Potential Project impacts to burrowing owl and nesting birds will not be significant with incorporation of Mitigation Measures BIO-1 and BIO-2, which are set forth in the Mitigation Monitoring and Reporting Program for the Project, attached to the Mitigated Negative Declaration included in **Appendix A** herein.*

- ***Archaeological and Historical Resources***

  *As described in **Issue V** herein, a historical/archaeological resources assessment was conducted at the Project site. Based on the assessment, there are no resources present on the Project site that meet the criteria for listing in the California Register of Historical Resources or qualify as a historical or archaeological resource under CEQA. Construction and operation of the Project is not expected to eliminate known important examples of major periods of California history or prehistory; however, in order to avoid or reduce potential impacts upon any previously undiscovered historical or archaeological resources that may be present in subsurface deposits, Mitigation Measure CUL-1 is incorporated into the Project and is set forth in the Mitigation Monitoring and Reporting Program included in **Appendix A** herein. With incorporation of Mitigation Measure CUL-1, the Project would not eliminate important examples of the major periods of California history or prehistory.*

- ***Paleontological Resources***

  *As described in **Issue VII(f)** herein, there are no known paleontological resources present on the Project Site. To avoid adverse impacts upon any previously undiscovered paleontological resources that may be present in subsurface soils at the Project Site, Mitigation Measure PALEO-1 is incorporated into the Project. Mitigation Measure PALEO-1 is set forth in the Mitigation Monitoring and Reporting Program for the Project, a copy of which is included in **Appendix A** herein. With incorporation of Mitigation Measure PALEO-1, the Project will not eliminate important examples of the major periods of California prehistory.*

Issue XXI. Mandatory Findings of Significance (Continued)

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.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	❑	❑	❑	☒

None of the impacts or potential impacts of the Project are cumulatively considerable.

Issue XXI. Mandatory Findings of Significance (Continued)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	❑	❑	❑	☒

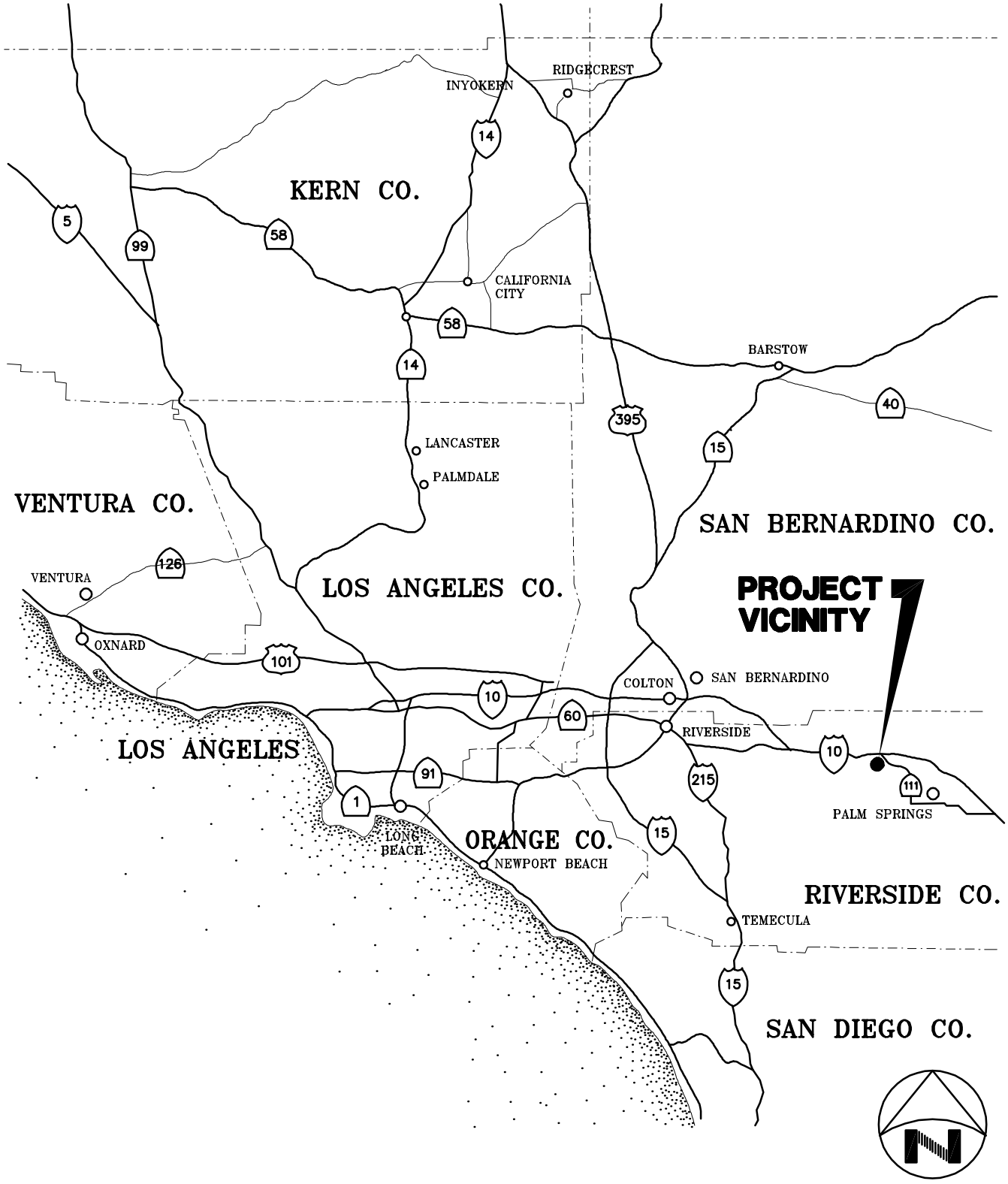
As described herein, none of the environmental effects of the Project will cause substantial adverse effects on human beings, either directly or indirectly.

PART 3
REFERENCES AND SOURCES

PART 3 - REFERENCES AND SOURCES

- California Air Resources Board Website for California Ambient Air Quality Standards, www.arb.ca.gov/resources/california-ambient-air-quality-standards
- California Board of Forestry and Fire Protection State Responsibility Area Viewer, bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer
- California Department of Conservation, Division of Land Resources Protection, California Important Farmland Finder, https://maps.conservation.ca.gov/DLRP/CIFF
- California Code of Regulations, Title 14, Division 6, Chapter 3; Guidelines for Implementation of the California Environmental Quality Act, Section 15000 *et seq;* as amended December 28, 2018
- California Department of Conservation Tsunami Program Website, conservation.ca.gov/cgs/tsunami/maps
- California Department of Toxic Substances Control Website, EnviroStor Database, www.envirostor.dtsc.ca.gov/public
- California Department of Transportation California Scenic Highway Mapping System Website, www.dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways
- California Emissions Estimator Model® (CalEEMod) Software, Version 2022.1, available online at caleemod.com
- County of Riverside General Plan, County of Riverside, 2015, updated 2021
- Federal Emergency Management Agency (FEMA) Map Service Center Website, www.msc.fema.gov
- Federal Emergency Management Agency National Flood Hazard Layer Viewer, www.fema.gov/flood-maps/national-flood-hazard-layer
- Fire Hazard Severity Zone Viewer, Fire Resource and Assessment Program, California Department of Forestry and Fire Protection, https://frap.fire.ca.gov
- Google Earth Pro, Version 7.3.6.9345
- Office of the State Fire Marshal Website, osfm.fire.ca.gov
- Riverside County "Map My County" online mapping and reporting tool, Riverside County Information Technology GIS, rcitgis-countyofriverside.hub.arcgis.com
- South Coast Air Quality Management District Website, www.aqmd.gov
- Sustainable Groundwater Management Act (SGMA) Groundwater Management Website, water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management
- United States Environmental Protection Agency Website for National Ambient Air Quality Standards, www.epa.gov/criteria-air-pollutants

FIGURES



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3602 University Avenue • Riverside, CA 92501
www.kriegerandstewart.com • 951 · 684 · 6900

DESERT WATER AGENCY

WELL 46 (PALM OASIS)
PROJECT VICINITY

FIGURE 1 OF 3

SCALE: N.T.S. DATE: 01/30/23 DRAWN BY: SPK CHECKED BY: VEM W.O.: 101-12.216

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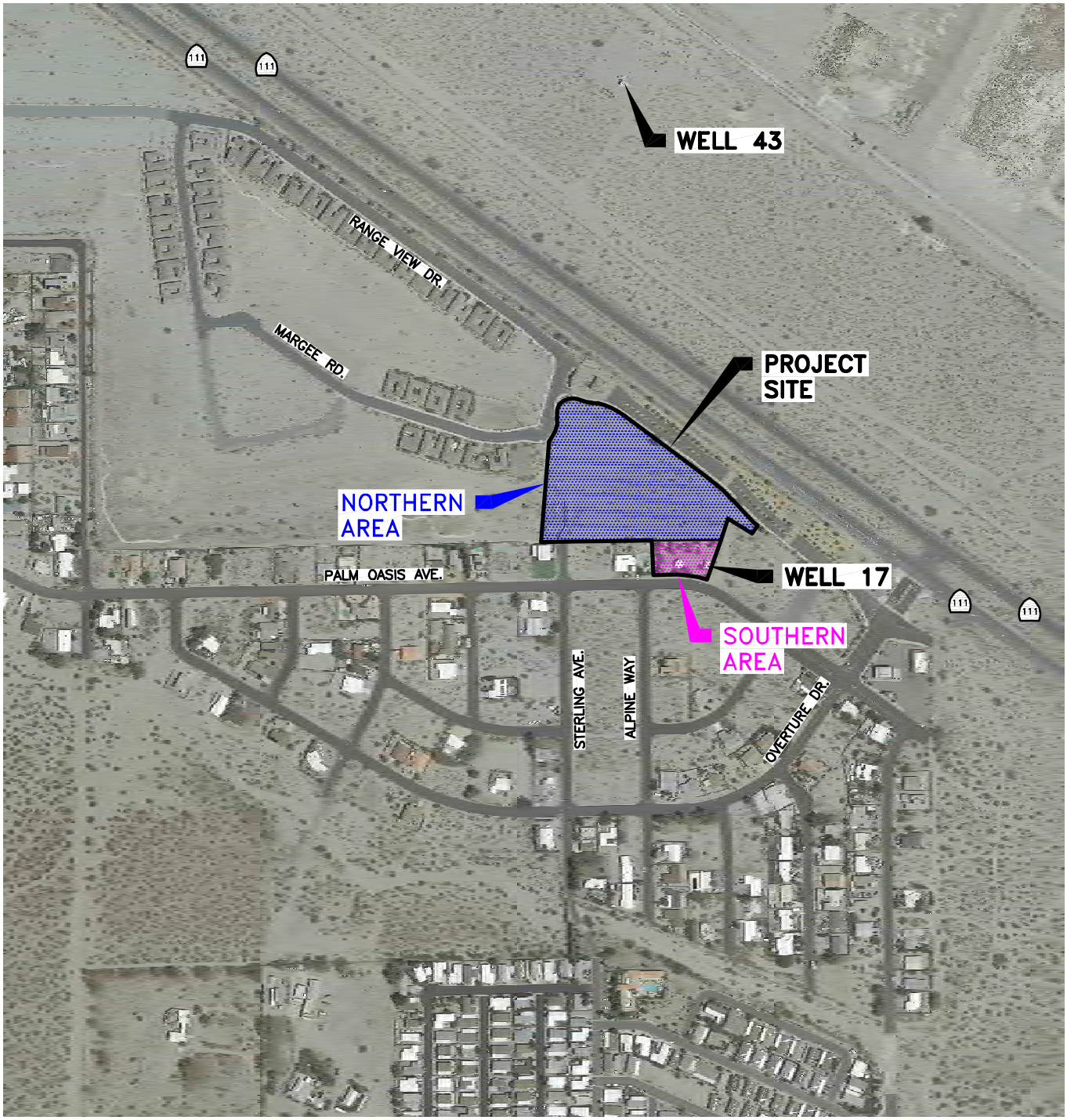

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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DESERT WATER AGENCY

WELL 46 (PALM OASIS) PROJECT LOCATION

FIGURE 2 OF 3

SCALE: 1"=400' DATE: 01/30/23 DRAWN BY: SPK CHECKED BY: VEM W.O.: 101-12.216

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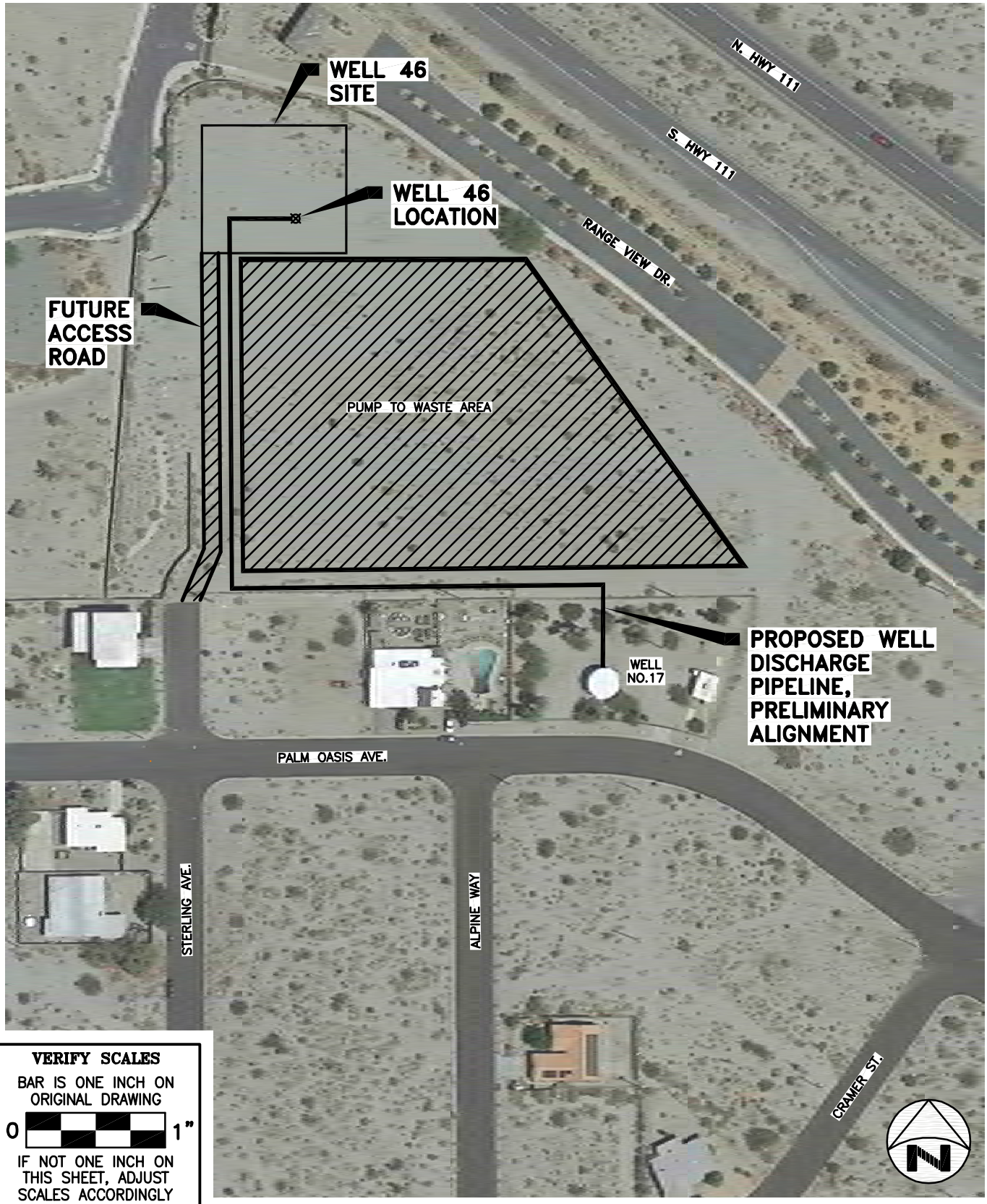

VERIFY SCALES

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DESERT WATER AGENCY

WELL 46 (PALM OASIS) PRELIMINARY SITE MAP

FIGURE 3 OF 3

SCALE: 1"=100' DATE: 04/05/23 DRAWN BY: SPK CHECKED BY: VEM W.O.: 101-12.216

101-12p216_f3a.dwg

APPENDIX A

DRAFT MITIGATED NEGATIVE DECLARATION
AND
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATED NEGATIVE DECLARATION

1.	Name or description of project:	Well 46 (Palm Oasis). The Project generally consists of construction and operation of one domestic groundwater production well. The Project also includes an access road extending north from the northerly terminus of Sterling Avenue to the well site, and up to 1,600 linear feet of well discharge pipeline extending from the new well site to the existing Well 17 forebay. A more detailed description is included in the Initial Study for the Project, which is available for review at the location cited below.
2.	Project Location – Identify street address and cross streets or attach a map showing project site (preferably a USGS 15' or 7 1/2' topographical map identified by quadrangle name):	The Project is located north of Palm Oasis Avenue, south of Range View Drive and Highway 111, and east of Margee Road in the community of Palm Oasis, near the City of Palm Springs, Riverside County, California, on land identified as Assessor's Parcel Numbers 669-680-024, 669-191-005, 669-191-006, and 669-191-009.
3.	Entity or Person undertaking project:	
	A. Entity	
	(1) Name:	Desert Water Agency
	(2) Address:	1200 S. Gene Autry Trail Palm Springs, CA 92264
	B. Other (Private)	
	(1) Name:	
	(2) Address:	

The Lead Agency, having reviewed the Initial Study of this proposed project, having reviewed the written comments received prior to the public meeting of the Lead Agency, and having reviewed the recommendation of the Lead Agency's Staff, does hereby find and declare that the proposed project will not have a significant effect on the environment. A brief statement of the reasons supporting the Lead Agency's findings are as follows:

Construction and operation of the Project will not result in significant adverse impacts upon any threatened or endangered species of plants or animals, nor will it result in damage to or destruction of any significant examples of California history or prehistory. Potential impacts upon local wildlife, nesting birds, burrowing owls, archaeological and historical resources, paleontological resources, and tribal cultural resources will be avoided or reduced by adhering to the terms of a Mitigation Monitoring and Reporting Program (see Exhibit A, attached, which is incorporated herein by reference) prior to and during construction of the Project.

The Lead Agency hereby finds that the Mitigated Negative Declaration reflects its independent judgment. A copy of the Initial Study is attached and may be viewed at the offices of Desert Water Agency at the address listed below.

The location and custodian of the documents and any other material which constitute the record of proceedings upon which the Lead Agency based its decision to adopt this Negative Declaration are as follows:

Desert Water Agency
1200 South Gene Autry Trail
Palm Springs, CA 92264
(760) 323-4971

_____
Date

_____
Paul Ortega
President, Board of Directors
DESERT WATER AGENCY

MITIGATION MONITORING AND REPORTING PROGRAM

EXHIBIT A TO THE MITIGATED NEGATIVE DECLARATION

Section I – Introduction

Section 21081.6 of the California Environmental Quality Act (CEQA) requires that a mitigation monitoring program be prepared prior to the approval of any project which incorporates mitigation measures as a condition of approval. Mitigation measures are generally adopted to reduce the potentially significant adverse environmental impacts of a project to a level that is less than significant. The mitigation monitoring program must ensure compliance with mitigation measures during project construction (and, if applicable, during project operation). Since the project considered by the Initial Study for Desert Water Agency's Well 46 (Palm Oasis) Project (the Project) incorporates mitigation measures as a condition of approval, this mitigation monitoring and reporting program has been prepared and incorporated into the Mitigated Negative Declaration for the Project.

Section II – Aesthetics Mitigation Measures and Mitigation Monitoring and Reporting Program

As discussed in Issue I of the Project Initial Study, the Project may include lighting at the new well site for use outside of daylight hours. Without mitigation, the lighting at the Project site could potentially result in adverse impacts upon local wildlife species in the area. This Mitigation Monitoring and Reporting Program is intended to reduce potential impacts by the Project upon wildlife species in the Project area by specifying methods and procedures for avoiding or reducing such impacts.

The following mitigation measure (**AES-1**) will be implemented in order to ensure that construction of Project facilities does not result in a significant adverse impact upon local wildlife. The measure is attended by a notation of the party responsible for its implementation and of the period for which it will be in effect.

AES-1: Nighttime Lighting

Throughout construction and the lifetime operations of the Project, DWA will eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light at night during the hours of dawn and dusk when many wildlife species are most active. DWA will ensure that all lighting for the Project is fully shielded, cast downward, reduced in intensity to the greatest extent, and does not result in lighting trespass including glare into surrounding areas including the Whitewater Floodplain Conservation Area or upward into the night sky. DWA will ensure use of LED lighting with a

correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler.

Responsible Party: DWA Project Manager
Implementation Period: During Project Construction and Ongoing Project Operation

Section III – Biological Resources Mitigation Measures and Mitigation Monitoring and Reporting Program

As discussed in Issue IV of the Project Initial Study, there is potential for burrowing owls and nesting bird species to be present on the Project site. Without mitigation, the Project could potentially result in significant adverse impacts upon such birds, if present onsite. This Mitigation Monitoring and Reporting Program is intended to reduce potential impacts by the Project upon biological resources, particularly burrowing owls and nesting birds, by specifying methods and procedures for avoiding or reducing such impacts.

The following mitigation measures (**BIO-1 and BIO-2**) will be implemented in order to ensure that construction of Project facilities does not result in a significant adverse impact upon burrowing owls or nesting birds. Each measure is attended by a notation of the party responsible for its implementation and of the period for which it will be in effect.

BIO-1: Burrowing Owl

Focused burrowing owl surveys will be conducted in accordance with the California Department of Fish and Wildlife (CDFW) Staff Report on Burrowing Owl Mitigation (2012 or most recent version). If burrowing owls are detected during the focused surveys, the qualified biologist and DWA will prepare a Burrowing Owl Plan that will be submitted to CDFW for review and approval prior to commencing construction activities. The Burrowing Owl Plan will describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan will include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers, and other avoidance measures if avoidance is proposed.

If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan will also describe minimization and compensatory mitigation actions that will be implemented.

Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take.

The Burrowing Owl Plan will identify compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the Staff Report on Burrowing Owl Mitigation (2012 or most recent version) and shall implement CDFW-approved mitigation prior to initiation of Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. DWA will implement the Burrowing Owl Plan following CDFW and United States Fish and Wildlife Service (USFWS) review and approval.

Preconstruction burrowing owl surveys will be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). Preconstruction surveys will be conducted whether or not burrowing owls were detected during the focused surveys. Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation (2012 or most recent version). If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities will be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that will be submitted to CDFW and USFWS for review and approval prior to commencing Project activities.

Responsible Party: DWA Project Manager
Implementation Period: Prior to Project Construction

BIO-2: Nesting Birds

Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts.

If active nests are found during the preconstruction nesting bird surveys, a qualified biologist will establish an appropriate nest buffer to be marked on the ground. Nest buffers are species-specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.

Responsible Party: DWA Project Manager
Implementation Period: Prior to and During Project Construction

Section IV – Cultural Resources Mitigation Measures and Mitigation Monitoring and Reporting Program

As discussed in Issue V of the Project Initial Study, the Project would not result in an adverse impact upon any known historical or archaeological resources (cultural resources). This Mitigation Monitoring and Reporting Program is intended to avoid or reduce the potential for impacts by the Project upon previously-undiscovered cultural resources that may be present in subsurface soil deposits by specifying methods and procedures for avoiding or reducing such impacts.

The following mitigation measures (**CUL-1 and CUL-2**) will be implemented in order to ensure that construction of Project facilities does not result in significant adverse impacts upon any previously-undiscovered cultural resources that may be uncovered during Project construction. Each measure is attended by a notation of the party responsible for its implementation and of the period for which it will be in effect.

CUL-1: Cultural Resources

In the event that any object uncovered during Project construction activities appears to be a historical or archaeological artifact (or appears to be older than 40 years), all work within fifty (50) feet of the discovery shall be immediately halted or diverted, and the following steps shall be taken:

- The construction contractor shall halt all work within a 50-foot radius of the discovery. Work outside the 50-foot radius may continue.
- The construction contractor shall immediately contact Desert Water Agency via telephone to notify the agency of the find.
- Desert Water Agency will contact a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualifications Standards to evaluate the nature and significance of the find.
- If the qualified archaeologist determines that the find is not a significant historical or archaeological resource, then construction may resume with approval of Desert Water Agency.
- If the qualified archaeologist determines that the find is a significant historical or archaeological resource, then construction shall not resume within the 50-foot radius of the discovery until a plan has been developed to preserve or protect the resource as appropriate and as determined by the Desert Water Agency in collaboration with the qualified archaeologist.

Responsible Party: DWA Project Manager
Implementation Period: During Ground Disturbing Activities

CUL-2: Human Remains

In the event that any human remains, or what appear to be human remains, are uncovered or encountered during Project construction, the construction contractor will halt or divert all work and will immediately notify the Riverside County Coroner's Office via telephone. After notifying the County Coroner, the contractor will also notify Desert Water Agency via telephone. In the event that the remains are determined to be of Native American origin, Desert Water Agency will contact the Native American Heritage Commission to determine the appropriate disposition of the remains.

Construction activities will not resume in the area of the find until Desert Water Agency notifies the construction contractor to proceed.

Responsible Party: DWA Project Manager
Implementation Period: During Ground Disturbing Activities

Section V – Paleontological Resources Mitigation Measures and Mitigation Monitoring and Reporting Program

As discussed in Issue VII of the Project Initial Study, the Project would not result in an adverse impact upon any known paleontological resources. This Mitigation Monitoring and Reporting Program is intended to avoid or reduce the potential for impacts by the Project upon previously-undiscovered paleontological resources that may be present in subsurface soil deposits by specifying methods and procedures for avoiding or reducing such impacts.

The following mitigation measure (**PALEO-1**) will be implemented in order to ensure that construction of Project facilities does not result in significant adverse impacts upon any previously-undiscovered paleontological resources that may be uncovered during Project construction. The measure is attended by a notation of the party responsible for its implementation and of the period for which it will be in effect.

PALEO-1: Paleontological Resources

The following measures will be implemented to protect any paleontological resources uncovered during ground disturbance at the Project site:

- If any potential paleontological resource is uncovered during Project construction, all work in the vicinity of the discovery shall be halted until a qualified paleontologist can evaluate the nature and significance of the find.
- If a qualified paleontologist determines that a specimen uncovered during Project construction is potentially significant, then all future ground-disturbing actions associated with the Project will be monitored by a qualified paleontological monitor.

- Specimens recovered from the Project site by the qualified paleontological monitor will be, in accordance with standard paleontological practice, identified and curated at a repository with permanent retrievable storage that will allow for additional research in the future.

Responsible Party: DWA Project Manager
Implementation Period: During Ground Disturbing Activities

Section VI – Tribal Cultural Resources Mitigation Measures and Mitigation Monitoring and Reporting Program

As discussed in Issue XVIII of the Project Initial Study, there are no known tribal cultural resources or other cultural resources on the Project site, and the Project would not result in an adverse impact upon any known tribal cultural resources. This Mitigation Monitoring and Reporting Program is intended to avoid or reduce the potential for impacts by the Project upon previously-undiscovered tribal cultural resources that may be present in subsurface soil deposits by specifying methods and procedures for avoiding or reducing such impacts.

The following mitigation measure (**TCR-1**) will be implemented in order to ensure that construction of Project facilities does not result in significant adverse impacts upon any previously-undiscovered tribal cultural resources that may be uncovered during Project construction. The measure is attended by a notation of the party responsible for its implementation and of the period for which it will be in effect.

TCR-1: Tribal Cultural Resources

Desert Water Agency will allow a tribal monitor approved by the Agua Caliente Band of Cahuilla Indians to be present on the Project Site during ground-disturbing activities. In the event that any potential tribal cultural resource is discovered during ground-disturbing activities pursuant to the Project, Desert Water Agency will contact a qualified archaeologist, meeting Secretary of the Interior's standards, to assess the find and determine the appropriate next steps. The District will consult in good faith with the archaeologist and local tribes on the disposition and treatment of any artifacts or other cultural materials encountered during activities pursuant to the Project.

Responsible Party: DWA Project Manager
Implementation Period: During Ground Disturbing Activities

APPENDIX B

BIOLOGICAL RESOURCES ASSESSMENT

BIOLOGICAL RESOURCES ASSESSMENT AND CVMSHCP CONSISTENCY ANALYSIS

PALM OASIS WELL PROJECT

RIVERSIDE COUNTY, CALIFORNIA

LSA

July 2023

BIOLOGICAL RESOURCES ASSESSMENT AND CVMSHCP CONSISTENCY ANALYSIS

PALM OASIS WELL PROJECT

RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

Krieger & Stewart, Incorporated
3890 Orange Street, Suite 1509
Riverside, California 92502

Prepared by:

LSA Associates, Inc.
3111 E. Tahquitz Canyon Way, Suite 109
Palm Springs, California 92262
(760) 517-8651

LSA Project No. KRS2201

LSA

July 2023

Krieger & Stewart, Incorporated retained LSA to prepare a Biological Resources Assessment and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) Consistency Analysis. This report has been prepared for compliance with the California Environmental Quality Act (CEQA) and the CVMSHCP.

The Palm Oasis Well Project (project) is within the planning boundaries of the CVMSHCP. The CVMSHCP provides take coverage for covered species, which include both listed and non-listed species that are adequately conserved by the CVMSHCP. To ensure adequate conservation of covered species, CVMSHCP Conservation Areas provide habitat and other ecological elements. The study area does not lie within a CVMSHCP Conservation Area. The project proponent (Desert Water Agency) would need to acquire authorization under the CVMSHCP as a Participating Special Entity to be covered under the CVMSHCP.

The project site provides low quality habitat for the federally listed Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*) and is not expected to occur. If the project proponent acquires authorization under the CVMSHCP, any project effects to this species would be covered through participation in the CVMSHCP, via payment of development fees. If the project proponent does not acquire authorization under the CVMSHCP as a third party, effects to the Coachella Valley milkvetch would not be considered substantial and no further study would be required.

The project site provides suitable habitat for three non-listed special status species including burrowing owl (*Athene cunicularia hypugaea*), flat-tailed horned lizard (*Phrynosoma mcalli*), and Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*). If the project proponent acquires authorization under the CVMSHCP, effects to the flat-tailed horned lizard and Palm Springs round-tailed ground squirrel, as covered species under the CVMSHCP, would be covered through participation in the CVMSHCP, via payment of development fees. If the project proponent does not acquire authorization under the CVMSHCP, project effects to these species are not considered substantial and no further study would be required. The following details specific measures to avoid project effects to burrowing owl.

The project site provides suitable habitat for burrowing owl, a special-status species, and other nesting birds protected by the Migratory Bird Treaty Act and the California Fish and Game Code. For compliance under the CVMSHCP and CEQA, a burrowing owl pre-construction survey within 14 days prior to construction would be required to avoid effects to this species. In addition, to avoid effects to nesting birds, LSA recommends that construction activities be conducted outside the general bird nesting season (January 15 through August 31). If construction activities cannot be conducted outside the bird nesting season, a pre-construction nesting bird survey is required no less than 3 days and not more than 7 days prior to construction activities.

No jurisdictional waters subject to the regulatory authority of the United States Army Corps of Engineers, the California Department of Fish and Wildlife, or the Regional Water Quality Control Board are present on the project site.

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ABBREVIATIONS AND ACRONYMS

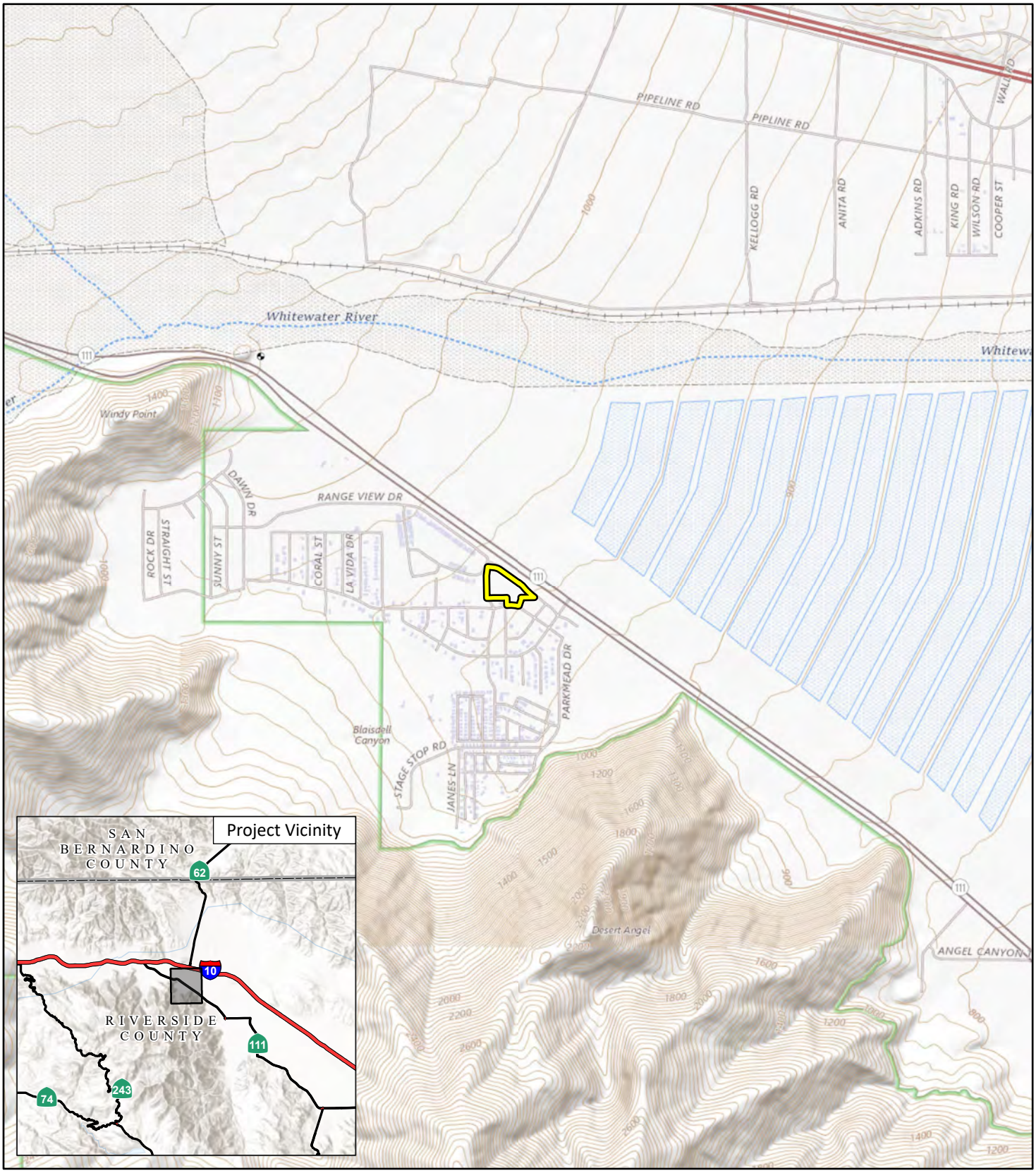
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
CVAG	Coachella Valley Association of Governments
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CWA	federal Clean Water Act
project	Palm Oasis Well Project
RWQCB	Regional Water Quality Control Board
SR-111	State Route 111
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

INTRODUCTION

Krieger & Stewart, Incorporated retained LSA to prepare a Biological Resources Assessment and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) Consistency Analysis. This report evaluates the 5.1-acre proposed Palm Oasis Well Project (project). The project site is northeast of the intersection of Palm Oasis Avenue and Sterling Avenue in an unincorporated area outside of Palm Springs Riverside County, California. The project site is depicted on the United States Geological Survey *Desert Hot Springs, California* 7.5-minute topographic quadrangles in Sections 19, Township 3 South, Range 4 East (see Figure 1).

PROJECT DESCRIPTION

The Desert Water Agency proposes development of a well site (11 feet x 175 feet in size), a pump to a waste area (96,000 square feet in size), a well discharge pipeline extending from the well site to well number 17, and an access road. The southernmost portion of the site has previously been developed and currently contains Well 17 and associated ornamental vegetation. The proposed project would further develop this area by adding associated pipelines connecting to Well 17.



LSA

ProjectLocation

FIGURE 1

N

0 1000 2000
FEET

SOURCE: USGS The National Map (2017)

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Palm Oasis Well Project

Project Location and Vicinity

METHODS

LITERATURE REVIEW

LSA conducted a literature review to assist in determining the existence or potential occurrence of special-interest plant and animal species within the project and in the project vicinity. A record search for the project and within a 1-mile radius of the project site was conducted on November 14, 2022, using *Rarefind 5* (California Department of Fish and Wildlife [CDFW] 2022). Current and historical aerial photographs were also reviewed using Google Earth (Google Earth Pro 2022). A review of the Final Recirculated CVMSHCP (CVAG 2007) was also conducted to determine CVMSHCP consistency and any conservation measures that apply to the project. The United States Fish and Wildlife Service (USFWS) Critical Habitat Mapper and National Wetland Inventory were also queried (USFWS 2022a, 2022b).

FIELD SURVEY

LSA Biologist Carla Cervantes conducted a general field survey of the project site on November 15, 2022, between 9:45 a.m. and 11:00 a.m. Weather conditions consisted of mostly clear skies, temperatures ranging from 62 to 65 degrees Fahrenheit, and winds ranging from 3 to 8 miles per hour. She surveyed the entire project site on foot and took notes on general site conditions, vegetation, and suitability of habitat for various special-interest elements. All plant and animal species observed or otherwise detected during this field survey were noted and are listed in Appendix A.

RESULTS

EXISTING SITE CONDITIONS

The project site is vacant land that has been affected by residential development and associated infrastructure. The southernmost portion of the site contains existing Well 17. Based on historic aerial imagery, the project site and adjacent areas to the east and west were entirely cleared and graded sometime between June 2002 and October 2004 (Google Earth Pro 2022). Well 17 has existed since prior to 1996. As a result, native vegetation on the project site is considered disturbed. Surrounding land uses include Range View Drive and California State Route 111 (SR-111) along the northern project boundary, vacant land and residential development along the southern project boundary, vacant land on the eastern boundary, and vacant land and residential development on the western project boundary. The project is within the boundaries of the CVMSHCP, as discussed in further detail below.

Topography and Soils

The project site is relatively flat with and elevation of 940 feet above mean sea level. The soils on the project site, as mapped by the Natural Resources Conservation Service Online Web Soil Survey (n.d.) consists of Carsitas gravelly sand, 0 to 9 percent slopes and Carsitas fine sand, 0 to 5 percent slopes (see Figure 2). Soils on site have been affected by previous grading activity and appear primarily gravelly.

Vegetation

Vegetation on the project site is best described as Ericameria Paniculata Shrubland Alliance (Black-Stem Rabbit Bush Scrub) (Sawyer et al. 2009). Dominant species identified include black-banded rabbitbrush (*Ericameria paniculata*), white bursage (*Ambrosia dumosa*), and brittlebush (*Encelia farinosa*). The southern portion of the site contains Well 17 and is considered developed. Ornamental vegetation (trees) occurs within the limits of Well 17 and along the northern project boundary. Ornamental trees identified included velvet mesquite (*Prosopis velutina*), olive (*Olea europaea*), tamarisk (*Tamarisk sp*.) and Mexican fan palm (*Washingtonia robusta*).

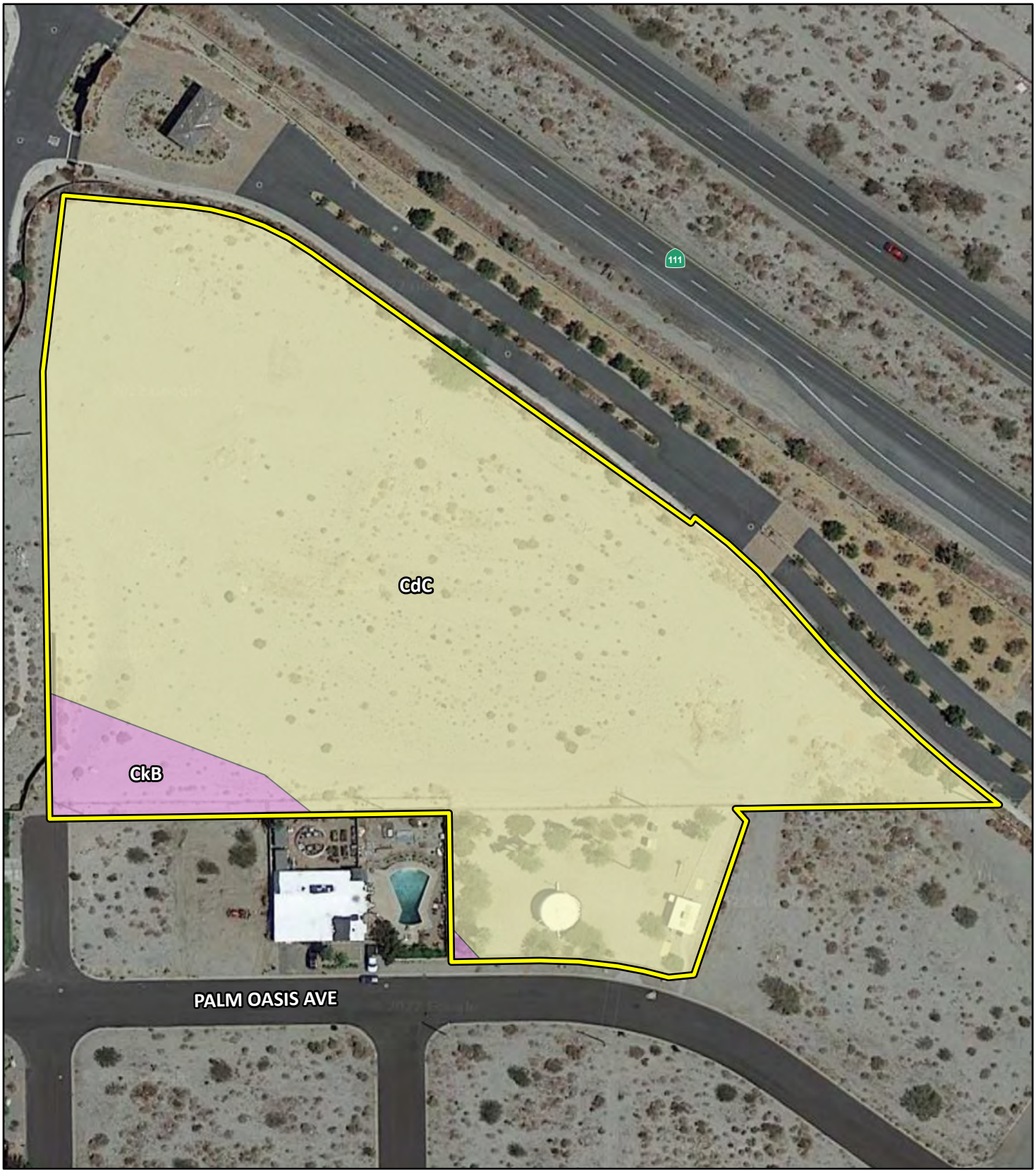
Figure 3 shows vegetation and photograph locations, and Figure 4 shows site photographs. A complete list of plant species observed is provided in Appendix A.

Wildlife

Common wildlife species observed within the study area during the field survey include mourning dove (*Zenaida macroura*), white-crowned sparrow (*Zonotrichia leucophrys*), and western fence lizard (*Sceloporus occidentalis*). A complete list of wildlife species observed is provided in Appendix A.

COACHELLA VALLEY MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The CVMSHCP is a comprehensive, multijurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in the Coachella Valley region of Riverside County. The CVMSHCP's overall goal is to maintain and enhance biological diversity and ecosystem



LSA

Project Location

Soils

CdC - Carsitas gravelly sand, 0 to 9 percent slopes

CkB - Carsitas fine sand, 0 to 5 percent slopes

FIGURE 2

N

0 50 100

FEET

SOURCE: Google Imagery (2021)

Palm Oasis Well Project

Soils

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LSA

Project Location

Vegetation

Black-Stem Rabbit Bush Scrub

Ornamental

Developed

Photograph Key Locations

N

0 50 100

FEET

SOURCE: Google Imagery (2021)

FIGURE 3

Palm Oasis Well Project

Vegetation and Photograph Key Location Map

I:\KRS2201\GIS\Pro\Palm Oasis Well Project\Palm Oasis Well Project.aprx (1/5/2023)

Photo 1: View from south side, looking southwest at existing Well #17.

Photo 2: View from northeastern side, looking west.

Photo 3: View from northeastern side, looking south.

Photo 4: View from north side looking, south.

LSA

FIGURE 4

Palm Oasis Well
Site Photographs

Photo 5: View from northwestern side, looking south.

Photo 6: View from southwestern side, looking east.

LSA

FIGURE 4

Palm Oasis Well
Site Photographs

processes within the region, while allowing for future economic growth. The CVMSHCP covers 27 sensitive plant and wildlife species (Covered Species) as well as 27 natural communities. Covered Species include both listed and non-listed species that are adequately conserved by the CVMSHCP. The overall provisions for the plan are subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as Conservation Areas.

The proposed project site is within the boundaries of the CVMSHCP; however, it is not within or immediately adjacent to any conservation areas identified in the CVMSHCP. The Santa Rosa and San Jacinto Mountains Conservation Area is 0.35 mile southwest of the project site. The Whitewater Floodplain Conservation Area is 0.05 mile northeast of the project site and along the northeastern side of SR-111. The proposed project would not affect these conservation areas.

The project proponent would need to acquire authorization under the CVMSHCP as a Participating Special Entity to be covered under the CVMSHCP.

SPECIAL-STATUS SPECIES

This section discusses special-status species observed or potentially occurring within the limits of the study area. Legal protection for special-interest species varies widely, from the comprehensive protection extended to listed threatened/endangered species to no legal interest at present. The CDFW, the USFWS, local agencies, and special-interest groups such as the California Native Plant Society (CNPS) publish watch lists of declining species. Species on watch lists can be included as part of the special-interest species assessment. The special-interest species list includes species that are candidates for State and/or federal listing and species on watch lists. Inclusion of species described in the special-interest species analysis is based on the following criteria

- Direct observation of the species or its sign in the study area or immediate vicinity during previous biological studies;
- Sighting by other qualified observers;
- Records reported by the California Natural Diversity Database, published by the CDFW;
- Presence or location information for specific species provided by private groups (e.g., CNPS); and/or
- Study area lies within known distribution of a given species and contains appropriate habitat.

The special-interest species analysis revealed 11 special-interest species with the potential to occur within the limits of the study area. Table A lists these species with a data summary and determination of the likelihood of each species occurring within the study area.

Table A: Special-Status Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Plants				
Astragalus lentiginosus var. *coachellae* **Coachella Valley milkvetch**	US: FE CA: 1B.2 CVMSHCP: C	Annual or perennial herb. Found in sandy areas, typically in coarse sands in active sand fields, adjacent to dunes, along roadsides in dune areas, or along the margins of sandy washes, in Sonoran Desert scrub at 60 to 655 meters (200 to 2,150 feet) in elevation. Known only from Riverside County in the Coachella Valley between Cabazon and Indio, and in the Chuckwalla Valley northeast of Desert Center.	Blooms February through May	**Low/Not Expected.** Soils are primarily gravelly and disturbed by previous grading activities. This species was not observed during the November 15, 2022, field survey.
Nemacaulis denudata var. gracilis **Slender cottonheads**	US: – CA: 2B.2 CVMSHCP: –	Annual herb. Coastal or desert dunes, sandy mesquite hummocks, or similar sandy sites at less than 500 meters (1,640 feet) in elevation. Known from Imperial, Riverside, San Bernardino, and San Diego counties in California, and from Arizona and Mexico.	Blooms mostly late March to mid May	**Absent.** Suitable habitat (desert dunes and sandy mesquite hummocks) is absent within project site.
Selaginella eremophila **Desert spike-moss**	US: – CA: 2B.2 CVMSHCP: –	Perennial herb. Shaded sites in gravelly soils and among rocks or in crevices from 200 to 900 meters (700 to 3,000 feet) in elevation in Sonoran desert scrub.	Reproductive mostly in June	**Absent.** Suitable habitat (shaded sites in gravelly soils and among rocks or in crevices) is not present within the project site.
Invertebrates				
Stenopelmatus cahuilaensis **Coachella Valley Jerusalem cricket**	US: – CA: SA CVMSHCP: C	Inhabits a small segment of the sand and dune areas of the Coachella Valley, in the vicinity of Palm Springs; found in large, undulating dunes piled up at the north base of Mt. San Jacinto.	Winter months after rain events	**Absent.** No suitable habitat (sand dunes) within the project site.
Reptiles				
Phrynosoma mcalli **Flat-tailed horned lizard**	US: – CA: SSC CVMSHCP: C	Fine sand in desert washes and flats with vegetative cover and ants, generally below 180 meters (600 feet) in elevation in Riverside, San Diego, and Imperial counties.	May be active year-round in mild weather, but peak activity occurs in spring, early summer, and fall	**Low.** Marginally suitable habitat (sandy areas in flats) is present within the study area due to the effects of the existing residential development and its small size. Therefore, the project site does not provide for the long-term conservation value for this species.

Table A: Special-Status Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Uma inornata **Coachella Valley fringe-toed lizard**	US: FT CA: SE CVMSHCP: C	Fine, loose, windblown sand (hummocks and dunes), interspersed with hardpan and widely spaced desert shrubs; known only from the Coachella Valley.	April through October (May is peak)	**Absent.** No suitable habitat (windblown sand hummocks and dunes) is present within the study area.
Birds				
Aquila chrysaetos (nesting and wintering) **Golden eagle**	US: – CA: CFP CVMSHCP: –	Generally open country of the Temperate Zone worldwide. Nests primarily in rugged mountainous country. Uncommon resident in Southern California.	Year-round diurnal	**Absent.** The project site does not provide suitable nesting habitat and is not expected to provide suitable foraging habitat due to effects of the existing residential development and its small size.
Athene cunicularia hypugaea (burrow sites) **Burrowing owl**	US: – CA: SSC (breeding) CVMSHCP: C	Open country in much of North and South America. Usually occupies ground squirrel burrows in open, dry grasslands, agricultural and range lands, railroad rights-of-way, and margins of highways, golf courses, and airports. Often uses man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles. They avoid thick, tall vegetation, brush, and trees but may occur in areas where brush or tree cover is less than 30 percent.	Year-round	**Low.** Habitat onsite is considered marginal due to the effects of the existing residential development and its small size. This species and its sign were not observed during the November 15, 2022, field survey. Therefore, the project site does not provide for the long-term conservation value for this species.
Falco mexicanus (nesting) **Prairie falcon**	US: – CA: SA CVMSHCP: –	Open country in much of North America. Nests in cliffs or rocky outcrops; forages in open arid valleys and agricultural fields. Rare in southwestern California.	Year-round diurnal	**Absent:** The project site does not provide suitable nesting habitat and is not expected to provide suitable foraging habitat due to the effects of existing residential development and its small size.
Mammals				
Xerospermophilus tereticaudus chlorus **Palm Springs round-tailed ground squirrel**	US: – CA: SSC CVMSHCP: C	Desert succulent scrub, desert wash, desert scrub, alkali scrub; will burrow in man-made levees; prefers open, flat, grassy areas in fine-textured, sandy soil. Restricted to Coachella Valley.	February through August (hibernates September through January)	**Moderate:** Suitable habitat (desert scrub and sandy soil) is present, and there are known CNDDB records of this species in the immediate project area. However, the project site is within an area affected by existing

Table A: Special-Status Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
				residential development and does not provide for the long-term conservation value for this species.
Ovis canadensis nelsonii (peninsular Distinct Population Segment) **Peninsular bighorn sheep**	US: FE CA: ST/CFP CVMSHCP: C	Occurs on open desert slopes below 1,220 meters (4,000 feet) in elevation from San Gorgonio Pass south into Mexico; optimal habitat includes steep-walled canyons and ridges bisected by rocky or sandy washes with available water.		**Absent.** Not expected based on the effects of existing residential development, small project footprint, and location between State Route 111 and residential development.

LEGEND

US: Federal Classifications

FE Taxa listed as Endangered.
FT Taxa listed as Threatened.

CA: State Classifications

CFP Taxa State-listed as fully protected
SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or protection status.
SE Taxa State-listed as Endangered.
ST Taxa State-listed as Threatened.
SSC California Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
1B California Rare Plant Rank 1B: Rare, threatened, or endangered in California and elsewhere.
2B California Rare Plant Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

CVMSHCP: Coachella Valley MSHCP Status

C Species is adequately conserved under the CVMSHCP.

Source: Compiled by LSA (2022).
CNDDB = California Natural Diversity Database

Threatened/Endangered Species

The following four federally/State listed species were identified as potentially present (Appendix A) in the project vicinity.

- Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*)
- Peninsular bighorn sheep (*Ovis canadensis nelsonii*)
- Golden eagle (*Aquila chrysaetos*)
- Coachella Valley fringe-toed lizard (*Uma inornata*)

As detailed in Table A, three species including the Coachella Valley fringe-toed lizard, golden eagle, and Peninsular bighorn sheep are considered absent based on lack of suitable habitat; therefore, the project will have no effects to these species.

The Coachella Valley milkvetch is a CVMSHCP covered species and has a low probability of occurrence and is not expected to occur on the project site. due to the project sites' location within an existing residential development and small size. Therefore, the project does not provide for the long-term conservation of the Coachella Valley milkvetch.

Non-Listed Special-Interest Species

Of the seven non-listed special-interest species identified in Table A, four species, including Coachella Valley Jerusalem cricket (*Stenopelmatus cahuilaensis*), slender cottonheads (*Nemacaulis denudata var. gracilis*), desert spike-moss (*Selaginella eremophila*), and prairie falcon (*Falco mexicanus*), are considered absent based on lack of suitable habitat. Two species, burrowing owl (*Athene cunicularia hypugaea*) and flat-tailed horned lizard (*Phrynosoma mcalli*), have a low probability of occurrence. One species, Palm Springs round-tailed ground squirrel (*Xerospermophilus tereticaudus chlorus*), has a moderate probability of occurrence.

The flat-tailed horned lizard, burrowing owl, and Palm Springs round-tailed ground squirrel are CVMSHCP covered species.

CRITICAL HABITAT

The project is not within federally designated critical habitat.

NESTING BIRDS

The site contains suitable nesting habitat for burrowing owl, a special-status nesting bird, and other non-special-status bird species. Nesting bird species with potential to occur within the project site are protected by California Fish and Game Code Sections 3503, 3503.5, and 3800, and by the Migratory Bird Treaty Act (16 United States Code 703–711). These laws regulate the take, possession, or destruction of the nest or eggs of any migratory bird or bird of prey.

JURISDICTIONAL WATERS

The United States Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the federal Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce), or it may be indirect (through a nexus identified in the USACE regulations). To be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics, each with its unique set of mandatory wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology.

The CDFW, under Sections 1600 through 1616 of the California Fish and Game Code, regulates alterations to lakes, rivers, and streams (defined by the presence of a channel bed and banks, and at least an intermittent flow of water) where fish or wildlife resources may be adversely affected.

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of the USACE (i.e., waters of the United States, including any wetlands). The RWQCB may also assert authority over “waters of the State” under waste discharge requirements pursuant to the California Porter-Cologne Water Quality Control Act.

No jurisdictional waters subject to the regulatory authority of the USACE, the CDFW, or the RWQCB are present on the project site.

IMPACTS AND RECOMMENDATIONS

The following is a discussion of potential disturbances and recommendations for avoidance, minimization, and mitigation measures per applicable local, State, and federal policy.

THREATENED AND ENDANGERED SPECIES

Coachella Valley Milkvetch

Coachella Valley milkvetch is a covered species under the CVMSHCP. Due to the project sites' location within an existing residential development and small size, the project does not provide for the long-term conservation of these species. If the project proponent acquires authorization under the CVMSHCP, the project would mitigate for any effects to Coachella Valley milkvetch through participation in the CVMSHCP via payment of development fees.

Federally listed plant species, like the Coachella Valley milkvetch, are not afforded the same level of protection as animal species under Section 9 of the Endangered Species Act. Take prohibition of listed plants only extends to federal lands and other federal nexus. The project is not on federal lands and has no federal nexus. Because there is no federal lands/nexus and the Coachella Valley milkvetch is not expected to occur, impacts are not considered substantial under CEQA. Therefore, no further study is required.

NON-LISTED SPECIAL-INTEREST SPECIES

Three special-interest species, burrowing owl, flat-tailed horned lizard, and Palm Springs round-tailed ground squirrel, have potential to occur on the project site. These species have a limited population distribution in Southern California and development is further reducing their ranges and numbers. These species have no official State or federal protection status but require consideration under CEQA. The effects to these species are not considered significant because the project site is currently affected by surrounding development, onsite disturbance, and habitats onsite are relatively widespread in the region. The project site would not provide long-term conservation value for these species and any project effects to these species would not be considered substantial.

The flat-tailed horned lizard and Palm springs round-tailed ground squirrel area CVMSHCP covered species. If the project proponent acquires authorization under the CVMSHCP, the project would mitigate for any effects to these species through participation in the CVMSHCP, via payment of development fees.

Specific measures to avoid project effects to burrowing owl are detailed below.

Burrowing Owl and Nesting Birds

The project site contains suitable habitat for burrowing owl and other nesting bird species. To avoid potential effects to burrowing owl and nesting birds, implementation of the following measure would be required:

- Within 14 days prior to construction activities and vegetation removal, a pre-construction burrowing owl survey will be conducted in accordance with CDFW's 2012 *Staff Report on Burrowing Owl Mitigation*. Four site visits will be conducted during the breeding season: one between February 15 and April 15, and three, at least three weeks apart, between 15 April and 15 July, with at least one of these after June 15. Surveys are conducted by walking transects. If burrowing owl is detected, the preparation of a burrowing owl mitigation plan would be required in coordination with the CDFW. If no burrowing owl are detected, a preconstruction survey would be required within 14 days prior to initial ground disturbing activities.

- Prior to construction activities, including vegetation removal, a pre-construction nesting bird survey will be conducted by a qualified biologist no less 3 days and not more than 7 days prior to any construction activities and vegetation removal. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. The buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist. No construction activities will be allowed within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active.

CRITICAL HABITAT

No federally designated critical habitat is present within the study area; thus, there will be no project-related effects to critical habitat.

JURISDICTIONAL WATERS

No jurisdictional waters subject to the regulatory authority of the USACE, the CDFW, or the RWQCB are present on the project site. Therefore, the project will have no effects to jurisdictional waters.

WILDLIFE MOVEMENT, CORRIDORS AND NURSERY SITES

Wildlife movement includes seasonal migration along corridors and daily movements for foraging. Migration corridors may include areas of unobstructed movement of deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and areas between roosting and feeding areas for birds.

Because the study area is not within a CVMSHCP-designated wildlife corridor and is bounded on the north and the east by development, the proposed project is not anticipated to have significant effects related to habitat fragmentation and regional wildlife movement. Local wildlife movement may be temporarily disrupted during the vegetation removal and construction processes, but this effect would be localized and short term; therefore, it is not considered significant.

NATURAL COMMUNITIES OF CONCERN

No natural communities of concern are present. Therefore, the project would have no effects to natural communities of concern.

LOCAL POLICIES AND ORDINANCES

The City of Palm Springs and the County of Riverside General Plans and development ordinances may include regulations or policies governing biological resources. For example, policies may include tree preservation, locally designated species survey areas, local species of interest, and significant ecological areas.

The County of Riverside's (County) Oak Tree Management Guidelines and County Ordinance No. 559 regulate tree removal for unincorporated areas of Riverside County. County Ordinance No. 559 states that removal of native trees with a height of 30 feet and a diameter breast height of 12 inches on any land that is more than 0.5 acre and above 5,000 feet in elevation is not allowed without a permit. While Riverside County's Oak Tree Management Guidelines address conservation of oak tree resources in the county, no oak trees occur within the project site. A desert willow (*Chilopsis linearis*), was observed on the project site. The desert willow is a native tree but does not have a height of 30 feet and is not at an elevation above 5,000 feet. Therefore, the proposed project will not conflict with local policies or ordinances applicable to biological resources.

COACHELLA VALLEY MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The project site is within the planning area of the CVMSHCP; however, it is not within a CVMSHCP Conservation Area. The project proponent would need to acquire authorization under the CVMSHCP as a Participating Special Entity to be covered under the CVMSHCP.

CUMULATIVE IMPACTS

According to Section 15130 of the *State CEQA Guidelines*, "cumulative impacts" refers to incremental effects of an individual project when viewed in connection with the effects of past projects, current projects, and probable future projects. Project construction would contribute to the incremental loss of black-stem rabbit bush scrub in the region, including potential habitat for special-status species. Cumulative impacts potentially include habitat fragmentation, increased edge effects, reduced habitat quality, and increased wildlife mortality. Cumulative impacts are not considered substantial with the implementation of mitigation measures identified in this document.

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APPENDIX A

PLANT AND ANIMAL SPECIES OBSERVED

Plant Species Observed

Scientific Name	Common Name
MAGNOLIOPHYTA: MAGNOLIOPSIDA	**DICOT FLOWERING PLANTS**
Asteraceae	**Sunflower family**
Ambrosia acanthicarpa	Flatspine bur ragweed
Ambrosia dumosa	White bursage
Ambrosia salsola	Burrobrush
Baccharis sarothroides	Broom baccharis
Bebbia juncea	Sweetbush
Dicoria canescens	Bugseed
Encelia farinosa	Brittlebush
Ericameria paniculata	Black-banded rabbitbrush
Palafoxia arida var. arida	Desert palafox
Psathyrotes ramosissima	Velvet turtleback
Bignoniaceae	**Bignonia family**
Chilopsis linearis	Desert willow
Boraginaceae	**Borage family**
Johnstonella angustifolia	Narrow-leaved cryptantha
Brassicaceae	**Mustard family**
*Sisymbrium irio**	London rocket
Cactaceae	**Cactus family**
Cylindropuntia echinocarpa	Silver cholla
Chenopodiaceae	Saltbush family
Atriplex canescens	Fourwing saltbush
*Salsola tragus**	Russian-thistle
Euphorbiaceae	**Spurge family**
Euphorbia sp.	Spurge
Euphorbia polycarpa	Smallseed sandmat
Fabaceae	**Pea family**
*Prosopis velutina**	Velvet mesquite
Psorothamnus arborescens	Mojave indigobush
Oleaceae	**Olive family**
*Olea europaea**	Olive
Onagraceae	**Evening primrose family**
Camissoniopsis pallida	Paleyellow suncup
Tamaricaceae	**Tamarisk family**
Tamarix sp.*	Tamarisk
Urticaceae	**Nettle Family**
Parietaria hespera	Rillita pellitory
Zygophyllaceace	**Caltrop family**
Larrea tridentata	Creosote bush
MAGNOLIOPHYTA: LILIOPSIDA	**MONOCOT FLOWERING PLANTS**
Arecaceae	**Palm family**
Washingtonia robusta *	Mexican fan palm
Poaceae	**Grass family**
Schismus barbatus *	common Mediterranean grass
Cynodon dactylon *	Bermuda grass
Pennisetum setaceum *	African fountain grass
Stipa speciosa	Desert needlegrass

* = nonnative species

Plant Species Observed

Scientific Name	Common Name

Wildlife Species Observed

Scientific Name	Common Name
Birds	
Columbidae	Pigeons and Doves
Zenaida macroura	mourning dove
Accipitridae	**Kites, Hawks, and Eagles**
Buteo jamaicensis	red-tailed hawk
Corvidae	**Crows and Ravens**
Corvus corax	common raven
Remizidae	**Penduline Tits and Verdin**
Auriparus flaviceps	verdin
Polioptilidae	**Gnatcatchers and Gnatwrens**
Polioptila caerulea	blue-gray gnatcatcher
Passeridae	**Old World Sparrows**
Passer domesticus *	house sparrow
Fringillidae	**Finches**
Haemorhous mexicanus	house finch
Passerellidae	**New World Sparrows**
Zonotrichia leucophrys	white-crowned sparrow
Parulidae	**Wood Warblers**
Setophaga petechia	yellow warbler
Reptiles	
Phrynosomatidae	**Phrynosomatid Lizards**
Sceloporus occidentalis	western fence lizard

* = nonnative species

APPENDIX C

CULTURAL RESOURCES ASSESSMENT

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

PALM OASIS WELL PROJECT

Near the City of Palm Springs
Riverside County, California

For Submittal to:

Desert Water Agency
1200 South Gene Autry Trail
Palm Springs, CA 92264

Prepared for:

Krieger & Stewart Engineering Consultants, Incorporated
3602 University Avenue
Riverside, CA 92501

Prepared by:

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

March 20, 2023
CRM TECH Project No. 3961

Title: Historical/Archaeological Resources Survey Report: Palm Oasis Well Project, near the City of Palm Springs, Riverside County, California

Author(s): Bai "Tom" Tang, Principal Investigator/Historian
Nicole Raslich, Archaeologist/Report Writer
Daniel Ballester, Archaeologist/Field Director

Consulting Firm: CRM TECH
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Colton, CA 92324
(909) 824-6400

Date: March 20, 2023

For Submittal to: Desert Water Agency
1200 Gene Autry Trail
Palm Springs, CA 92264
(760) 323-4971

Prepared for: Victoria E. Morrell
Krieger & Stewart Engineering Consultants, Incorporated
3602 University Avenue
Riverside, CA 92501
(951) 684-6900

USGS Quadrangle: Desert Hot Springs, Calif., 7.5' quadrangle (Section 19 and 30, T3S R4E, San Bernardino Baseline and Meridian)

Project Size: Approximately 6.5 acres

Keywords: Phase I historical/archaeological resources survey; Assessor's Parcel Numbers 669-191-005, 669-191-006, 669-191-009, 669-191-011, and 669-680-024 (portion); no "historical resources" under CEQA

EXECUTIVE SUMMARY

Between October 2022 and March 2023, at the request of Krieger & Stewart Engineering Consultants, Incorporated, CRM TECH performed a cultural resources study for the proposed Palm Oasis Well Project near the City of Palm Springs, Riverside County, California. The subject property of the study consists of approximately 6.5 acres of mostly vacant land in Assessor's Parcel Nos. 669-191-005, 669-191-006, 669-191-009, 669-191-011, and a portion of 669-680-024, located on the northwestern side of Cramer Street and between Range View Drive and Palm Oasis Avenue, in the southwest quarter of Section 19 and the northwest quarter of Section 30, T3S R4E, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the proposed project, which entails the construction of a new well and associated facilities such as access roads and pipelines. The Desert Water Agency (DWA), as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the DWA with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search, contacted the pertinent Native American representatives, pursued historical background research, and carried out an intensive-level field survey. Throughout the various avenues of research, no "historical resources" were encountered within or adjacent to the project area. Therefore, CRM TECH recommends to the DWA a finding of *No Impact* regarding "historical resources." No further cultural resources investigation is recommended for this project unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between October 2022 and March 2023, at the request of Krieger & Stewart Engineering Consultants, Incorporated, CRM TECH performed a cultural resources study for the proposed Palm Oasis Well Project near the City of Palm Springs, Riverside County, California (Fig. 1). The subject property of the study consists of approximately 6.5 acres of mostly vacant land in Assessor's Parcel Nos. 669-191-005, 669-191-006, 669-191-009, 669-191-011, and a portion of 669-680-024, located on the northwestern side of Cramer Street and between Range View Drive and Palm Oasis Avenue, in the southwest quarter of Section 19 and the northwest quarter of Section 30, T3S R4E, San Bernardino Baseline and Meridian (Figs. 2, 3).

The study is part of the environmental review process for the proposed project, which entails the construction of a new well and associated facilities such as access roads and pipelines. The Desert Water Agency (DWA), as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide the DWA with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search, contacted the pertinent Native American representatives, pursued historical background research, and carried out an intensive-level field survey. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

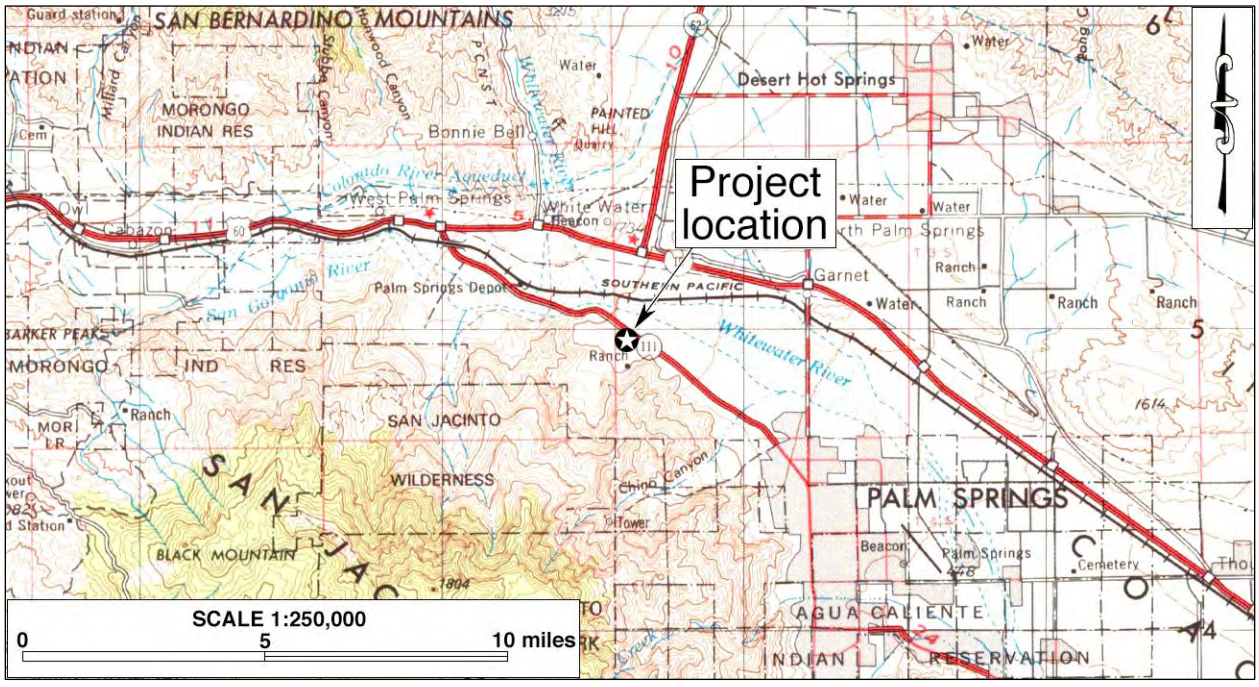

Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 120'x60' quadrangle [USGS 1979])

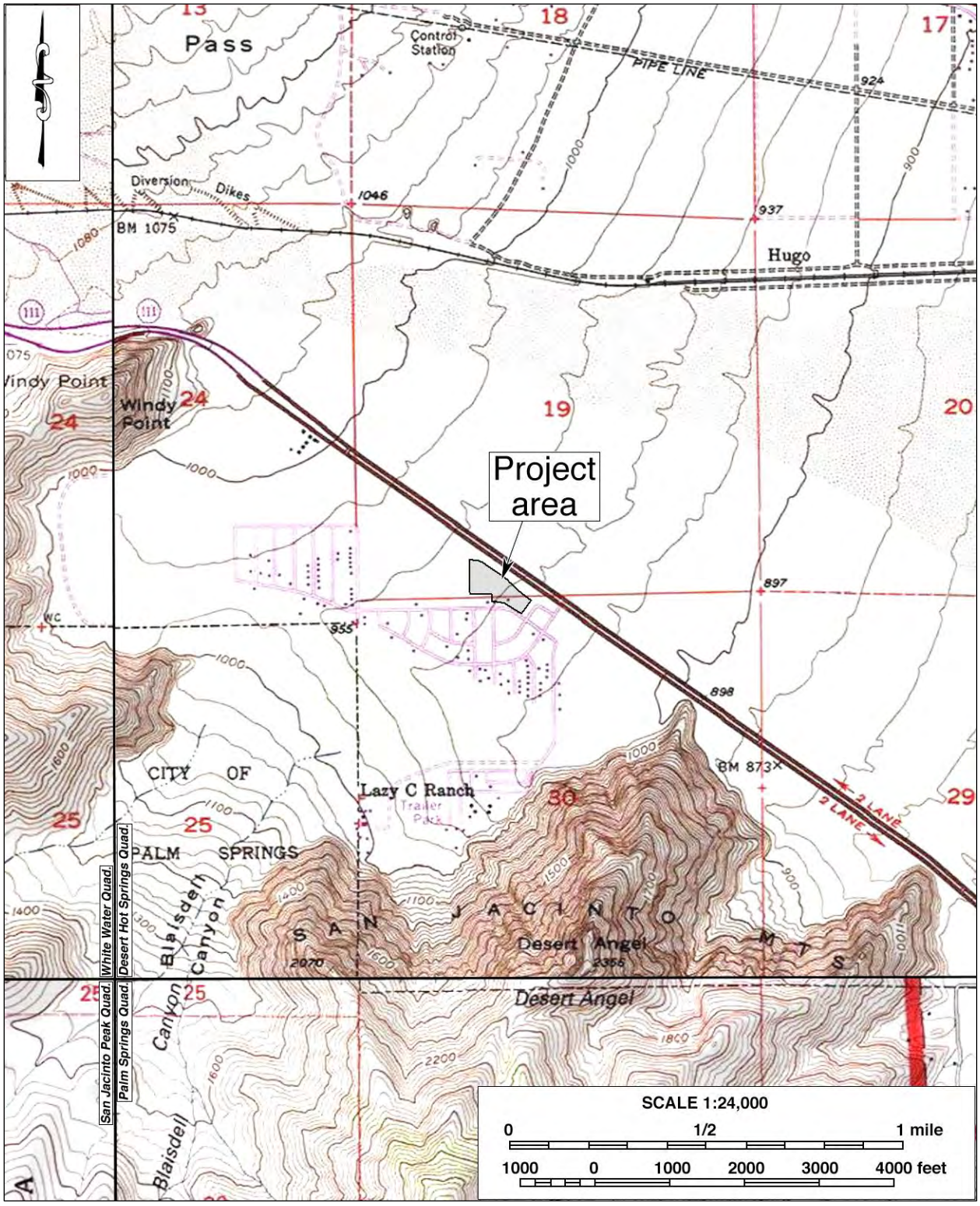

Figure 2. Project location. (Based on USGS Desert Hot Springs, Palm Springs, San Jacinto Peak, and White Water, Calif., 7.5' quadrangles [USGS 1978; 1996a-c])

Figure 3. Recent satellite image of the Project Area. (Based on Google Earth imagery)

SETTING

CURRENT NATURAL SETTING

The Palm Springs area is situated near the northwestern end of the Coachella Valley, a northwest-southeast trending desert valley that constitutes the westernmost portion of the Colorado Desert. Dictated by this geographic setting, the climate and environment of the project area and its surrounding region are typical of southern California's desert country, marked by extremes in temperature and aridity. Temperatures in the region reach over 120 degrees in summer, and dip to near freezing in winter. Average annual precipitation is less than five inches, and average annual evaporation rate exceeds three feet.

The project area lies on the northern edge of a small cluster of residential and commercial developments on the southwestern side of Highway 111, one of the main transportation arteries across the Coachella Valley, and just outside the northern boundary of the City of Palm Springs. The location is within the opening of Blaisdell Canyon, approximately a half-mile from the base of the San Jacinto Mountains. Elevations on the property range from approximately 930 feet to approximately 950 feet above mean sea level. While most of the project area is vacant and unused today (Fig. 4), an existing water production facility is located in the southern portion of the property, along Palm Oasis Avenue (Fig. 3).

Figure 4. Typical landscape in the project area; view to the north. (Photographs taken on February 1, 2023)

The terrain in the project area is relatively level except for a few stockpiles of soil and rocks as well as a large dug-out area, with a gradual incline to the northwest. The surface soil in the vicinity is made up of coarse decomposing granitic sand mixed with small to large rocks and small boulders. The vegetation is typical of the desert creosote plant community, consisting of creosote bushes, brittlebush, stick cholla, and other small grasses and shrubs (Fig. 4). Intriduced landscaping plants were observed along the northern project boundary and within the existing water facility, such as olive trees, palms, and palo verde.

CULTURAL SETTING

Prehistoric Context

Numerous investigations on the history of cultural development in southern California have led researchers to propose a number of cultural chronologies for the desert regions. A specific cultural sequence for the Colorado Desert was offered by Schaefer (1994) on the basis of the many archaeological studies conducted in the area. The earliest time period identified is the Paleoindian (ca. 8,000 to 10,000-12,000 years ago), when "small, mobile bands" of hunters and gatherers, who relied on a variety of small and large game animals as well as wild plants for subsistence, roamed the region (*ibid*.:63). These small groups settled "on mesas and terraces overlooking larger washes" (*ibid*.:64). The artifact assemblage of that period typically consists of very simple stone tools, "cleared circles, rock rings, [and] some geoglyph types" (*ibid*.).

The Early Archaic Period follows and dates to ca. 8,000 to 4,000 years ago. It appears that a decrease in population density occurred at this time and that the indigenous groups of the area relied more on foraging than hunting. Very few archaeological remains have been identified to this time period. The ensuing Late Archaic Period (ca. 4,000 to 1,500 years ago) is characterized by continued low population densities and groups of "flexible" sizes that settled near available seasonal food resources and relied on "opportunistic" hunting of game animals. Groundstone artifacts for food processing were prominent during this time period.

The most recent period in Schaefer's scheme, the Late Prehistoric, dates from ca. 1,500 years ago to the time of the Spanish missions, and saw the continuation of the seasonal settlement pattern. Peoples of the Late Prehistoric Period were associated with the Patayan cultural pattern and relied more heavily on the availability of seasonal "wild plants and animal resources" (Schaefer 1994:66). It was during this period that ceramics and the bow/arrow were introduced into the region.

Ethnohistoric Context

The Coachella Valley is a historical center of Native American settlement, where U.S. surveyors noted large numbers of Indian villages and *rancherías*, occupied by the Cahuilla people, in the mid-19th century. The origin of the name "Cahuilla" is unclear, but may originate from their own word *káwiya*, meaning master or boss (Bean 1978). The Takic-speaking Cahuilla are generally divided by anthropologists into three groups according to their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley. The basic written sources on Cahuilla culture and history include Kroeber (1925), Strong (1929), and Bean (1978), based on information provided by such Cahuilla informants as Juan Siva, Francisco

Patencio, Katherine Siva Saubel, and Mariano Saubel. The following ethnohistoric discussion is derived primarily from these sources.

The Cahuilla did not have a single name that referred to an all-inclusive tribal affiliation. Instead, membership was in terms of lineages or clans. Each lineage or clan belonged to one of two main divisions of the people, known as moieties. The moieties were named for the Wildcat, or *Tuktum,* and Coyote*,* or *Istam*. Members of clans in one moiety had to marry into clans from the other moiety. Individual clans had villages, or central places, and territories they called their own, for purposes of hunting game, and gathering raw materials for food, medicine, ritual, or tool use. They interacted with other clans through trade, intermarriage, and ceremonies.

Cahuilla subsistence was defined by the surrounding landscape and primarily based on the hunting and gathering of wild and cultivated foods, exploiting nearly all of the resources available in a highly developed seasonal mobility system. They were adapted to the arid conditions of the desert floor, the lacustral cycles of Holocene Lake Cahuilla, and the environments of the nearby mountains. When the lake was full, or nearly full, the Cahuilla would take advantage of the resources presented by the body of fresh water, building elaborate stone fish traps. Once the lake had desiccated, they relied on the available terrestrial resources. The cooler temperatures and resources available at higher elevations in the nearby mountains were also taken advantage of.

The Cahuilla diet included seeds, roots, wild fruits and berries, acorns, wild onions, piñon nuts, and mesquite and screw beans. Medicinal plants such as creosote, California sagebrush, yerba buena and elderberry were typically cultivated near villages (Bean and Saubel 1972). Common game animals included deer, antelope, big horn sheep, rabbits, wood rats and, when Holocene Lake Cahuilla was present, fish and waterfowl. The Cahuilla hunted with throwing sticks, clubs, nets, traps, and snares, as well as bows and arrow (Bean 1978; CSRI 2002). Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow-straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink (*ibid.*).

As the landscape defined their subsistence practices, the tending and cultivation practices of the Cahuilla helped shape the landscape. Biological studies have recently found evidence that the fan palms found in the Coachella Valley and throughout the southeastern California desert (*Washingtonia filifera*) may not be relics of palms from a paleo-tropical environment, but instead a relatively recent addition brought to the area and cultivated by native populations (Anderson 2005). Cahuilla oral tradition tells of a time before there were palms in the area, and how the people, birds, and animals enjoyed the palm fruit once it had arrived (Bean and Saubel 1972). The planting of palms by the Cahuilla is well-documented, as is their enhancement of palm stands through the practice of controlled burning (Bean and Saubel 1972; Anderson 2005). Burning palm stands would increase fruit yield dramatically by eliminating pests such as the palm borer beetle, date scales, and spider mites (Bean and Saubel 1972). Firing palm stands prevented out-of-control wildfires by eliminating dead undergrowth before it accumulated to dangerous levels. The Cahuilla also burned stands of chia to produce higher yields, and deergrass to yield straighter, more abundant stalks for basketry (Bean and Saubel 1972; Anderson 2005).

Population data prior to European contact is almost impossible to obtain, but estimates range from 3,600 to as high as 10,000 persons covering a territory of over 2,400 square miles. During the 19th century, the Cahuilla population was decimated as a result of European diseases, most notably smallpox, for which the Native peoples had no immunity. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in and near the Coachella Valley, including Agua Caliente, Morongo, Cabazon, Torres Martinez, and Augustine. The nearest among them, the Agua Caliente Indian Reservation, which encompasses much of the City of Palm Springs, was created in 1876 for the Kauisiktum ("from the rock") lineage of the Pass Cahuilla (Strong 1929:91).

Historic Context

In 1823-1825, José Romero, José Maria Estudillo, and Romualdo Pacheco became the first noted European explorers to travel through the Coachella Valley when they led a series of expeditions in search of a route to Yuma (Johnston 1987:92-95). Due to its harsh environment, few non-Indians ventured into the desert valley during the Mexican and early American periods, except those who traveled along the established trails. The most important of these trails was the Cocomaricopa Trail, an ancient Indian trading route that was "discovered" in 1862 by William David Bradshaw and known after that as the Bradshaw Trail (Gunther 1984:71; Ross 1992:25). In much of the Coachella Valley, this historic wagon road traversed a similar course to that of present-day Highway 111. During the 1860s-1870s, the Bradshaw Trail served as the main thoroughfare between coastal southern California and the Colorado River, until the completion of the Southern Pacific Railroad in 1876-1877 brought an end to its heyday (Johnston 1987:185).

Non-Indian settlement in the Coachella Valley began in the 1870s with the establishment of railroad stations along the Southern Pacific Railroad, and spread further in the 1880s after public land was opened for claims under the Homestead Act, the Desert Land Act, and other federal land laws (Laflin 1998:35-36; Robinson 1948:169-171). Farming became the dominant economic activity in the valley thanks to the development of underground water sources, often in the form of artesian wells. Around the turn of the century, the date palm was introduced into the Coachella Valley, and by the late 1910s dates were the main agricultural crop and the tree an iconic image celebrating the region as the "Arabia of America" (Shields Date Gardens 1957). Starting in the 1920s, a new industry featuring equestrian camps, resorts, hotels, and eventually country clubs began to spread throughout the Coachella Valley, transforming it into southern California's premier winter retreat.

The City of Palm Springs owes its origin to the early development efforts led by John Guthrie McCallum, who began purchasing land in the area in 1872 (Gunther 1984:374). The townsite was surveyed and subdivided in 1884, initially under the name of "Palm City" (*ibid.*). After a resurvey in 1887, the new town acquired its present name (*ibid.*). The Palm Springs subdivision was an instant success despite its location in the heart of the southern California desert, thanks to an eight-mile-long irrigation ditch that McCallum built from the Whitewater River to the townsite. By 1892, Welwood Murray had leased the Agua Caliente hot springs from the local Native Americans to establish a health resort (*ibid.*:4), forecasting the future of development in the budding community. In the 1920s-1930s, Palm Springs was "discovered" by the rich and famous of Hollywood, and soon became a favored desert spa, the forerunner and nucleus of the Coachella Valley resort industry.

RESEARCH METHODS

HISTORICAL/ARCHAEOLOGICAL RESOURCES RECORDS SEARCH

The historical/archaeological resources records search for this study was provided by the Eastern Information Center (EIC) of the California Historical Resources Information System, located on the campus of the University of California, Riverside, on January 23, 2023. During the records search, EIC staff examined maps and records on file for previously identified cultural resources and existing cultural resources studies within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County Historic Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

NATIVE AMERICAN PARTICIPATION

On October 31, 2022, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. Between January 24 and 26, 2023, CRM TECH also contact the Agua Caliente Band of Cahuilla Indians (ACBCI) by e-mail to arrange for tribal participation in the upcoming archaeological field survey. The responses from the NAHC and the ACBCI are summarized in the sections below.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH principal investigator/ historian Bai "Tom" Tang. Sources consulted during the research included published literature in local history, historic maps of the Palm Springs area, and aerial/satellite photographs of the project vicinity. Among the maps consulted for this study were the U.S. General Land Office's (GLO) land survey plat maps dated 1856 and the U.S. Geological Survey's (USGS) topographic maps dated 1901-1996, which are accessible at the websites of the U.S. Bureau of Land Management and the USGS. The aerial and satellite photographs, taken between 1972 and 2020, are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

FIELD SURVEY

On February 1, 2022, CRM TECH field director Daniel Ballester carried out the field survey of the project area. The survey was completed on foot at an intensive level by walking a series of parallel northeast-southwest transects at 15-meter (approximately 50-foot) intervals. In this way, the entire project area was inspected systematically and closely for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). Ground visibility in the project area was generally good (70-85%; Fig. 4) except where patches of dense vegetation, pavement, or imported dirt piles are present. In light of the extent of past ground disturbances in the vicinity, the ground visibility is considered adequate for this study.

RESULTS AND FINDINGS

HISTORICAL/ARCHAEOLOGICAL RESOURCES RECORDS SEARCH

According to EIC records, portions of the project area were included in the scopes of two cultural resources studies completed in 2005-2006 (Fig. 5), but no cultural resources were previously recorded within or adjacent to the project boundaries. Within the one-mile scope of the records search, some 30 studies completed between 1973 and 2017 have been reported to the EIC (Fig. 5), and 15 historical/archaeological sites have been recorded into the California Historical Resources Inventory, as listed in Table 1.

As Table 1 shows, two of these recorded sites were of prehistoric—i.e., Native American—origin, consisting of a reported village site and a bedrock milling feature. The other 13 sites dated to the historic period and included mainly structural remains, refuse scatters, and infrastructure features such as roads and irrigation works, although a possible grave was also among them. None of these 15 sites were found in the immediate vicinity of the project location. Therefore, none of them require further consideration during this study.

Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search

Primary No.	Recorded by/Date	Description
33-000198	Francis and Johnston 1960	Ethnohistoric village site, unlocatable in 2010
33-004165	Everson and Hallaran 1991	Former ranch site with foundations, irrigation features, and refuse scatters
33-004873	Moloney 2017	McCallum's Ditch, ca. 1887
33-009497	Johnson 1999	Early 20th century water conveyance features
33-009498	Ashkar 1999	Railroad section, active line with regular maintenance
33-017280	Wilson 2008	Bedrock milling feature
33-018767	Ehringer 2010	Structural foundation and historic-period debris scatter
33-018768	Ehringer 2010	Possible historic-period grave
33-018769	Ehringer 2010	Historic-period debris scatter and presumed pet cemetery
33-018770	Ehringer 2010	Historic-period fenceline
33-020876	Lev-Tov 2011	Refuse scatter
33-020877	Lev-Tov 2011	Refuse scatter
33-020879	Kremkau 2011	Dirt road
33-020881	Lev-Tov 2011	Concrete bridge on Highway 111
33-026893	Moloney et al. 2017	Historic-period water collection and conveyance system

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the NAHC reported on November 29, 2022, that the Sacred Lands File search did not identify any Native American cultural resources in the project vicinity. Noting that the absence of specific information does not ascertain the absence of such resources, however, the NAHC recommended that local Native American groups be contacted for further information and provided a list of potential contacts in the region. The NAHC's reply is attached to this report in Appendix 2 for reference by the DWA during future government-to-government consultation process, if necessary.

As mentioned above, CRM TECH contacted the nearby ACBCI to coordinate tribal participation in the field survey. In an e-mail reply on January 27, 2023, Lacy Padilla, Operations Manager of the

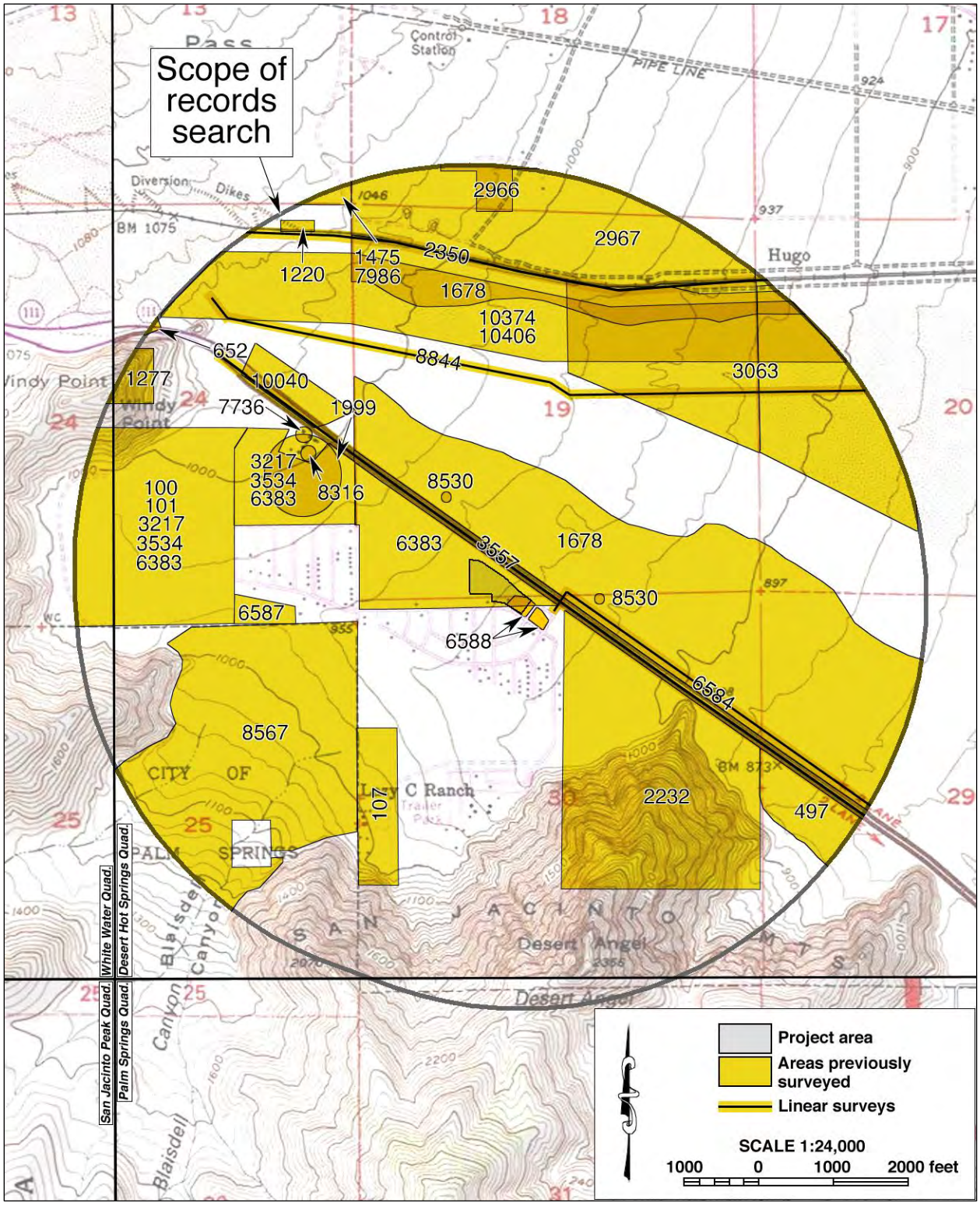

Figure 5. Previous cultural resources studies in the vicinity of the project area, listed by EIC file number. Locations of historical/archaeological resources are not shown as a protective measure.

Agua Caliente Tribal Historic Preservation Office, stated that the tribe did not have a staff member available for the fieldwork and requested to be notified if any archaeological remains were found during the survey.

HISTORICAL RESEARCH

Historical maps and aerial photographs consulted for this study indicate that the project area remained unsettled and undeveloped throughout the historic period despite its location in close proximity to one of the principal transportation arteries in the Coachella Valley (Figs. 6-9; NETR Online 1972). Since at least the 1850s, the historic Cocomaricopa Trail and later Highway 111 have followed largely the same alignment across the project vicinity (Figs. 6-9). The residential and commercial developments in the surrounding area today, however, date only to the 1955-1972 period, when all of the streets adjacent to the project boundaries were laid out (Fig. 9; NETR Online 1972).

Within the project area, the first evidence of water procurement and/or storage activities, in the form of a water tank, was noted between 1975 and 1979 (NETR Online 1975; 1979). That water tank was later removed, and the structures and other features associated with the well in the project area today came into being between 1984 and 1996 (NETR Online 1984; 1996). Between 2002 and 2005, the entire project area was cleared of vegetation, and it may have been used for construction staging during a residential development on the adjacent property to the northwest (NETR Online 2002; 2005). Since then, no major changes have occurred in the landscape of the project area (NETR Online 2005-2020).

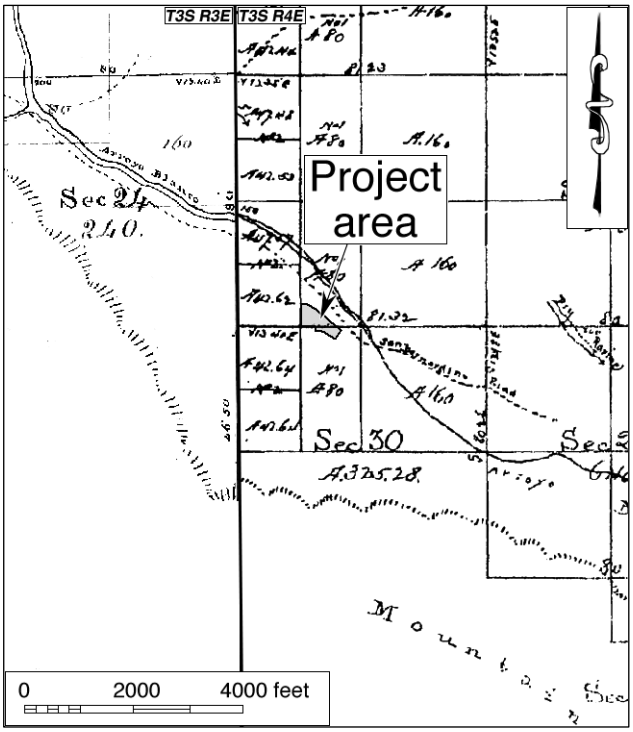

Figure 6. The project area and vicinity in 1855-1856. (Source: GLO 1856a; 1856b)

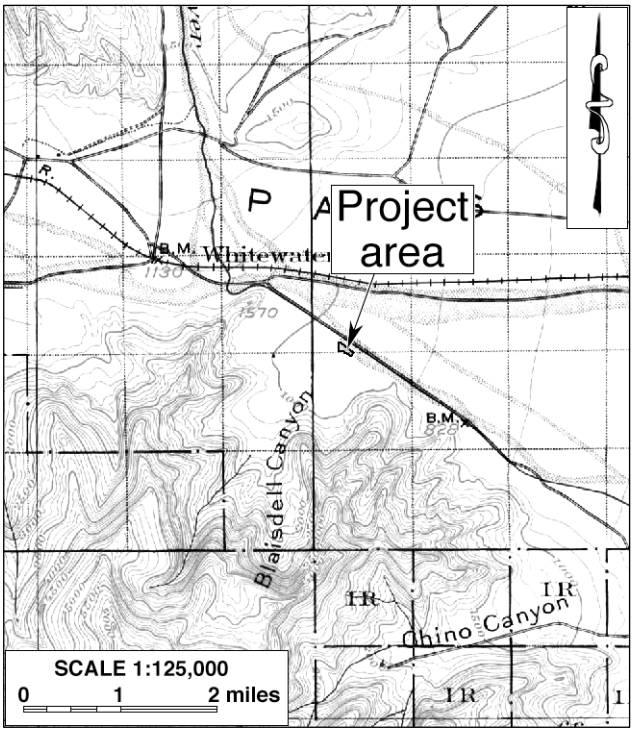

Figure 7. The project area and vicinity in 1897-1901. (Source: USGS 1901)

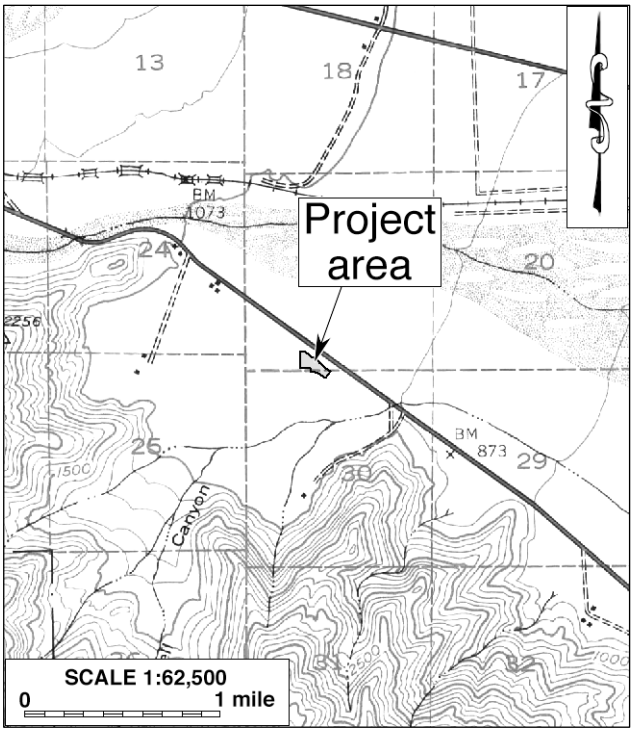

Figure 8. The project area and vicinity in 1940. (Source: USGS 1940)

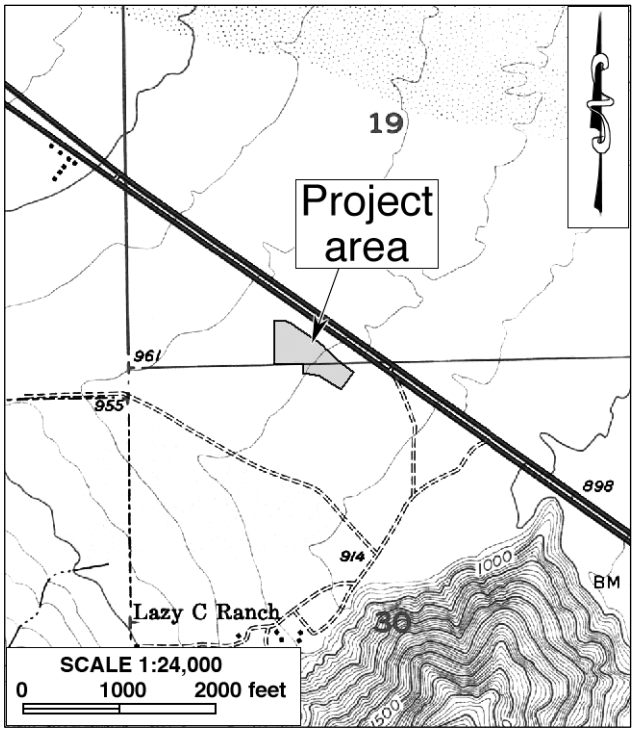

Figure 9. The project area and vicinity in 1951-1955. (Source: USGS 1955)

FIELD SURVEY

The field survey yielded completely negative results for potential "historical resources," and no building, structures, objects, sites, features, or artifact deposits of prehistoric or historical origin were encountered. The ground surface in the project area has evidently been leveled in the past, most likely in 2002-2005 (see above), and a few stockpiles of soil and rocks remain on the property today. Overall, the project area retains little vestige of its native landscape. Some scattered refuse was observed on the ground surface, but all of the items are clearly modern in origin, and none of them demonstrate any historical/archaeological value.

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area, and to assist the DWA in determining whether such resources meet the official definition of "historical resources" as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical

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

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

In summary of the research results presented above, no potential "historical resources" were previously recorded within the project area, and none were found during the present survey. In addition, the Native American representatives consulted during this study did not identify any sites of traditional cultural value nearby, and no notable cultural features were known to be present in the project area throughout the historic period. Based on these findings, and in light of the significance criteria listed above, the present report concludes that no "historical resources" exist within the project area.

CONCLUSION AND RECOMMENDATIONS

CEQA provides that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired." The results of the present study have established that no "historical resources," as defined by CEQA and associated regulations, are present within or adjacent to the project area. Therefore, CRM TECH presents the following recommendations to the DWA:

- The proposed project will not cause a substantial adverse change to any known "historical resources."
- No further cultural resources investigation will be necessary for this project unless construction plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are encountered during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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1957 *Coachella Valley Desert Trails and the Romance and Sex Life of the Date*. Shields Date Gardens, Indio.

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USGS (United States Geological Survey, U.S. Department of the Interior)
1901 Map: San Jacinto, Calif. (30', 1:125,000); surveyed in 1897-1898.
1940 Map: Palm Springs, Calif. (15', 1:62,500); aerial photographs taken in 1940.
1955 Map: Desert Hot Springs, Calif. (7.5', 1:24,000); aerial photographs taken in 1951, field-checked in 1955.
1978 Map: Desert Hot Springs, Calif. (7.5', 1:24,000); 1955 edition photo revised in 1972 and photo inspected 1978.
1979 Map: Santa Ana, Calif. (120'x60', 1:250,000); 1959 edition revised.
1996a Map: Palm Springs, Calif. (7.5', 1:24,000); aerial photographs taken 1994.
1996b Map: San Jacinto Peak, Calif. (7.5', 1:24,000); aerial photographs taken in 1975, photo revised in 1994.
1996c Map: White Water, Calif. (7.5', 1:24,000); photo revised in 1996.

APPENDIX 1
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR, HISTORY
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, University of California, Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, University of California, Riverside.
1988-1993	Research Assistant, American Social History, University of California, Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR, ARCHAEOLOGY
Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	"Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998	Assistant Research Anthropologist, University of California, Riverside.
1992-1995	Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998	Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources management study reports since 1986.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Nicole A. Raslich, M.A.

Education

2017-	Ph.D. candidate, Michigan State University, East Lansing.
2011	M.A., Anthropology, Michigan State University, East Lansing.
2005	B.A., Natural History of Biology and Anthropology, University of Michigan, Flint.
2022	Adult First Aid/CPR/AED Certification, American Red Cross.
2019	Grant and Research Proposal Writing for Archaeologists; SAA Online Seminar.
2014	Bruker Industries Tracer S1800 pXRF Training; presented by Dr. Bruce Kaiser, Bruker Scientific.
2013	Introduction to ArcGIS, Michigan State University, East Lansing.

Professional Experience

2022-	Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2022	Archaeological Technician, Agua Caliente Band of Cahuilla Indians, Palm Springs, California.
2008-2021	Archaeological Consultant, Saginaw Chippewa Indian Tribe of Michigan.
2019	Archaeologist, Sault Tribe of Chippewa Indians and Little Traverse Bay Band of Odawa Indians
2018	Teaching Assistant, Michigan State University, East Lansing.
2017	Adjunct Professor, University of Michigan, Flint.
2015-2016	Graduate Fellow, Michigan State University Campus Archaeology Program, East Lansing.
2015	Archaeologist, Michigan State University, Illinois State Museum, and Dickson Mounds Museum.
2013-2015	Curation Research Assistant, Michigan State University Museum, East Lansing.
2008-2014	Research Assistant, Intellectual Property Issues in Cultural Heritage, Simon Frasier University, British Columbia, Canada.
2009-2012	Editorial Assistant/Copy Editor, *American Antiquity*.
2009-2011	Archaeologist/Crew Chief, Saginaw Chippewa Indian Tribe of Michigan.

Publications

2017	Preliminary Results of a Handheld X-Ray Fluorescence (pXRF) Analysis on a Marble Head Sarcophagus Sculpture from the Collection of the Kresge Art Center, Michigan State University. Submitted to Jon M. Frey, Department of Art, Art History, and Design. Michigan State University, East Lansing.
2016	Preserving Sacred Sites: Arctic Indigenous Peoples as Cultural Heritage Rights Holders (L. Heinämäki, T.M. Herrmann, and N.A. Raslich). University of Lapland Printing Centre, Rovaniemi, Finland.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, M.S., RPA (Registered Professional Archaeologist)

Education

2013	M.S., Geographic Information System (GIS), University of Redlands, California.
1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.
2007	Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
2002	"Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

2002-	Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
2011-2012	GIS Specialist for Caltrans District 8 Project, Garcia and Associates, San Anselmo, California.
2009-2010	Field Crew Chief, Garcia and Associates, San Anselmo, California.
2009-2010	Field Crew, ECorp, Redlands.
1999-2002	Project Archaeologist, CRM TECH, Riverside, California.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside.

Cultural Resources Management Reports

Field Director, co-author, and contributor to numerous cultural management reports since 2002.

APPENDIX 2

SACRED LANDS FILE SEARCH RESULTS

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

November 29, 2022

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Palm Oasis Well Project, Riverside County

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
11/29/2022

Agua Caliente Band of Cahuilla Indians
Reid Milanovich, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919
laviles@aguacaliente.net

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
84-001 Avenue 54 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Los Coyotes Band of Cahuilla and Cupeño Indians
Ray Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Palm Oasis Well Project, Riverside County.

Native American Heritage Commission
Native American Contact List
Riverside County
11/29/2022

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov

Ramona Band of Cahuilla
John Gomez, Environmental Coordinator
P. O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramona-nsn.gov

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Soboba Band of Luiseno Indians
Isaiah Vivanco, Chairperson
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Cultural Committee,
P.O. Box 1160 — Cahuilla
Thermal, CA, 92274
Phone: (760) 397 - 0300
Fax: (760) 397-8146
Cultural-Committee@torresmartinez-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Anthony Madrigal, Tribal Historic Preservation Officer
46-200 Harrison Place — Chemehuevi
Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place — Chemehuevi
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Palm Oasis Well Project, Riverside County.

APPENDIX D

AIR QUALITY CALCULATIONS

Palm Oasis Well (Well 46) Custom Report

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3.8. Building Construction (2023) - Mitigated

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3.10. Paving (2023) - Mitigated

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Palm Oasis Well (Well 46)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	11.2
Location	33.889633390154984, -116.60914850160222
County	Riverside-Salton Sea
City	Unincorporated
Air District	South Coast AQMD
Air Basin	Salton Sea
TAZ	5617
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	0.00	Dwelling Unit	6.00	0.00	0.00	0.00	0.00	Groundwater well

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-9	Use Dust Suppressants
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	4.82	4.05	39.8	37.5	0.05	21.7	10.2	11.8	0.23	5,591
Mit.	4.82	4.05	39.8	37.5	0.05	21.7	10.2	11.8	0.23	5,591
% Reduced	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.97	1.65	16.4	20.4	0.03	0.74	0.05	0.68	0.16	3,938
Mit.	1.97	1.65	16.4	20.4	0.03	0.74	0.05	0.68	0.16	3,938
% Reduced	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	0.35	3.32	3.71	0.01	0.77	0.30	0.44	0.02	616
Mit.	0.41	0.35	3.32	3.71	0.01	0.77	0.30	0.44	0.02	616
% Reduced	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.06	0.61	0.68	< 0.005	0.14	0.06	0.08	< 0.005	102

Mit.	0.08	0.06	0.61	0.68	< 0.005	0.14	0.06	0.08	< 0.005	102
% Reduced	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	150	—	55.0	—	—
Unmit.	Yes	No	No	No	No	No	—	No	—	—
Mit.	Yes	No	No	No	No	No	—	No	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	150	—	55.0	—	—
Unmit.	Yes	No	No	No	No	No	—	No	—	—
Mit.	Yes	No	No	No	No	No	—	No	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	Yes
Mit.	—	—	—	—	—	—	—	—	—	Yes

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2023	4.82	4.05	39.8	37.5	0.05	21.7	10.2	11.8	0.23	5,591
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2023	1.97	1.65	16.4	20.4	0.03	0.74	0.05	0.68	0.14	3,559
2024	1.85	1.55	11.3	12.4	0.03	0.63	0.05	0.44	0.16	3,938
Average Daily	—	—	—	—	—	—	—	—	—	—

2023	0.41	0.35	3.32	3.71	0.01	0.77	0.30	0.44	0.02	616
2024	0.11	0.09	0.68	0.76	< 0.005	0.04	< 0.005	0.03	0.01	238
Annual	—	—	—	—	—	—	—	—	—	—
2023	0.08	0.06	0.61	0.68	< 0.005	0.14	0.06	0.08	< 0.005	102
2024	0.02	0.02	0.12	0.14	< 0.005	0.01	< 0.005	< 0.005	< 0.005	39.4

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2023	4.82	4.05	39.8	37.5	0.05	21.7	10.2	11.8	0.23	5,591
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2023	1.97	1.65	16.4	20.4	0.03	0.74	0.05	0.68	0.14	3,559
2024	1.85	1.55	11.3	12.4	0.03	0.63	0.05	0.44	0.16	3,938
Average Daily	—	—	—	—	—	—	—	—	—	—
2023	0.41	0.35	3.32	3.71	0.01	0.77	0.30	0.44	0.02	616
2024	0.11	0.09	0.68	0.76	< 0.005	0.04	< 0.005	0.03	0.01	238
Annual	—	—	—	—	—	—	—	—	—	—
2023	0.08	0.06	0.61	0.68	< 0.005	0.14	0.06	0.08	< 0.005	102
2024	0.02	0.02	0.12	0.14	< 0.005	0.01	< 0.005	< 0.005	< 0.005	39.4

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Unmit.	0.01	0.01	0.01	0.08	< 0.005	0.01	< 0.005	< 0.005	< 0.005	18.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	0.01	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	16.3
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	< 0.005	0.01	0.06	< 0.005	0.01	< 0.005	< 0.005	< 0.005	17.2
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.85
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	55.0	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	55.0	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	10,000
Unmit.	—	—	—	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.08	< 0.005	0.01	< 0.005	< 0.005	< 0.005	18.5
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.01	0.01	0.01	0.08	< 0.005	0.01	< 0.005	< 0.005	< 0.005	18.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	16.3
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	< 0.005	< 0.005	0.01	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	16.3
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	< 0.005	0.01	0.06	< 0.005	0.01	< 0.005	< 0.005	< 0.005	17.2
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.01	< 0.005	0.01	0.06	< 0.005	0.01	< 0.005	< 0.005	< 0.005	17.2
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.85
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.85

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.08	< 0.005	0.01	< 0.005	< 0.005	< 0.005	18.5
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.01	0.01	0.01	0.08	< 0.005	0.01	< 0.005	< 0.005	< 0.005	18.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	0.01	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	16.3
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	< 0.005	< 0.005	0.01	0.05	< 0.005	0.01	< 0.005	< 0.005	< 0.005	16.3
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	< 0.005	0.01	0.06	< 0.005	0.01	< 0.005	< 0.005	< 0.005	17.2
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.01	< 0.005	0.01	0.06	< 0.005	0.01	< 0.005	< 0.005	< 0.005	17.2
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.85

Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00
Water	—	—	—	—	—	—	—	—	0.00	0.00
Waste	—	—	—	—	—	—	—	—	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.85

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.66	0.21	5,314
Dust From Material Movement	—	—	—	—	—	19.7	10.1	10.1	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.65	0.58	< 0.005	0.03	—	0.03	< 0.005	87.3
Dust From Material Movement	—	—	—	—	—	0.32	0.17	0.17	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.12	0.11	< 0.005	0.01	—	< 0.005	< 0.005	14.5
Dust From Material Movement	—	—	—	—	—	0.06	0.03	0.03	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.11	1.98	0.00	0.23	0.05	0.05	0.01	277
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	< 0.005	< 0.005	4.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.66	0.21	5,314
Dust From Material Movement	—	—	—	—	—	19.7	10.1	10.1	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.65	0.58	< 0.005	0.03	—	0.03	< 0.005	87.3
Dust From Material Movement	—	—	—	—	—	0.32	0.17	0.17	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.11	< 0.005	0.01	—	< 0.005	< 0.005	14.5
Dust From Material Movement	—	—	—	—	—	0.06	0.03	0.03	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.11	1.98	0.00	0.23	0.05	0.05	0.01	277
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	< 0.005	< 0.005	4.13

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	< 0.005	0.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.87	0.12	2,968
Dust From Material Movement	—	—	—	—	—	7.08	3.42	3.42	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.77	0.76	< 0.005	0.04	—	0.03	< 0.005	114
Dust From Material Movement	—	—	—	—	—	0.27	0.13	0.13	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.01	0.14	0.14	< 0.005	0.01	—	0.01	< 0.005	18.8
Dust From Material Movement	—	—	—	—	—	0.05	0.02	0.02	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	1.70	0.00	0.20	0.05	0.05	0.01	237
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005	< 0.005	< 0.005	8.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.87	0.12	2,968
Dust From Material Movement	—	—	—	—	—	7.08	3.42	3.42	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.77	0.76	< 0.005	0.04	—	0.03	< 0.005	114
Dust From Material Movement	—	—	—	—	—	0.27	0.13	0.13	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.14	< 0.005	0.01	—	0.01	< 0.005	18.8
Dust From Material Movement	—	—	—	—	—	0.05	0.02	0.02	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	1.70	0.00	0.20	0.05	0.05	0.01	237
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005	< 0.005	< 0.005	8.27

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.97	1.65	16.4	20.4	0.03	0.74	—	0.68	0.14	3,559
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.94	1.17	< 0.005	0.04	—	0.04	0.01	205
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.21	< 0.005	0.01	—	0.01	< 0.005	33.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.97	1.65	16.4	20.4	0.03	0.74	—	0.68	0.14	3,559
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.94	1.17	< 0.005	0.04	—	0.04	0.01	205
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.21	< 0.005	0.01	—	0.01	< 0.005	33.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.51	0.10	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.79	< 0.005	0.03	—	0.03	0.01	145
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.14	< 0.005	0.01	—	0.01	< 0.005	24.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.51	0.10	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.79	< 0.005	0.03	—	0.03	0.01	145
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.14	< 0.005	0.01	—	0.01	< 0.005	24.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.38	0.06	1,517
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—
Paving	—	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.30	< 0.005	0.01	—	0.01	< 0.005	45.7
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—
Paving	—	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	7.57

Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—
Paving	—	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.10	0.97	0.00	0.20	0.05	0.05	0.01	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	< 0.005	< 0.005	6.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.38	0.06	1,517
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—
Paving	—	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.30	< 0.005	0.01	—	0.01	< 0.005	45.7
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—
Paving	—	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	7.57
Architectural Coatings	—	0.00	—	—	—	—	—	—	—	—
Paving	—	0.00	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.10	0.97	0.00	0.20	0.05	0.05	0.01	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	< 0.005	< 0.005	6.50

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	1.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.77	1.49	11.2	11.5	0.03	0.43	—	0.40	0.15	3,742
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.67	0.70	< 0.005	0.03	—	0.02	0.01	226
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.12	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	37.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.09	0.88	0.00	0.20	0.05	0.05	0.01	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.01	< 0.005	< 0.005	< 0.005	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	2.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5D	PM2.5T	CH4	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.77	1.49	11.2	11.5	0.03	0.43	—	0.40	0.15	3,742
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.67	0.70	< 0.005	0.03	—	0.02	0.01	226
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.12	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	37.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.09	0.88	0.00	0.20	0.05	0.05	0.01	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.07	0.00	0.01	< 0.005	< 0.005	< 0.005	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	< 0.005	2.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	9/1/2023	9/9/2023	5.00	6.00	Vegetation Clearing and Removal
Grading	Grading	9/12/2023	9/30/2023	5.00	14.0	Site Grading and Preparation

Well Drilling	Building Construction	10/3/2023	10/31/2023	5.00	21.0	Well Drilling and Construction
Well Development	Building Construction	11/1/2023	11/30/2023	5.00	22.0	Well Development
Road Construction	Paving	12/1/2023	12/16/2023	5.00	11.0	Construction of Onsite Access Road
Pipeline Construction	Trenching	1/2/2024	1/31/2024	5.00	22.0	Construction of discharge piping and connection to Well 17 forebay

8. User Changes to Default Data

Screen	Justification
Land Use	The project site consists of approximately 6 acres
Construction: Construction Phases	No demolition is included in the project. Dates of construction phases are preliminary estimates.
Construction: Off-Road Equipment	Drill rig is needed to drill the well. No default equipment was listed for "Pipeline Construction" phase; all equipment was added based on anticipated equipment needed.
Operations: Refrigerants	No household A/C units or residential refrigerators or freezers are included in the project. No residential units are included in the project.