



BOARD OF DIRECTORS REGULAR MEETING STUDY SESSION AGENDA

Thursday, September 16, 2021 at 3:00 PM
Via Teleconference – No Live Attendance

NOTICE IS HEREBY GIVEN MISSION SPRINGS WATER DISTRICT BOARD MEETINGS WILL BE CONDUCTED PURSUANT TO THE GOVERNOR'S EXECUTIVE ORDER N-29-20 IN AN EFFORT TO PROTECT THE PUBLIC HEALTH AND PREVENT THE SPREAD OF COVID-19 (CORONAVIRUS). THE PUBLIC MAY ATTEND AND PARTICIPATE TELEPHONICALLY AS THERE WILL BE NO PUBLIC LOCATION FOR ATTENDING IN PERSON. THE AUDIO/VIDEO RECORDING OF THESE MEETINGS MAY BE POSTED TO THE MSWD WEBPAGE FOLLOWING THE MEETING.

THE PUBLIC MAY SUBMIT ANY COMMENTS ADDRESSING ITEMS BELOW BY EMAILING DPETEE@MSWD.ORG PRIOR TO THE START OF THE MEETING.

JOIN ZOOM MEETING:

<https://us02web.zoom.us/j/8220655340?from=addon>

DIAL BY PHONE:

+1 (408) 638-0968

Meeting ID: 822 065 5340

ACTION MAY BE TAKEN ON ANY ITEM LISTED ON THIS AGENDA

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. RULES OF PROCEDURE

5. PUBLIC INPUT

*This is the opportunity for members of the public to address the Board on matters within the Board's jurisdiction. **Please limit comments to three (3) minutes or less.** State law prohibits the Board from discussing or taking action on any item not listed on the agenda.*

EMPLOYEE RECOGNITION

6. HUMAN RESOURCES REPORT

ACTION ITEMS

7. ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION 9 ELECTION

At the Board's discretion, either concur with the Region 9 Nominating Committee's recommended slate of offices, or concur on individual candidates for Chair, Vice Chair, and five

(5) Board Members, and direct the Board President to submit the Ballot.

8. RESOLUTION 2021-14 - CERTIFICATION AND ADOPTION OF THE FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE VISTA RESERVOIR NO. 2 PROJECT

It is recommended that the Board adopt Resolution 2021-14 certifying and adopting the Final Initial Study and Mitigated Negative Declaration for the Vista Reservoir No. 2 Project, and adopt the Mitigation Monitoring and Reporting Program (MMRP), and authorize the General Manager to sign and file a Notice of Determination (NOD) with the County of Riverside within five days of the Board meeting.

9. RESOLUTION 2021-15 - CERTIFICATION AND ADOPTION OF THE FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE GROUNDWATER QUALITY PROTECTION PROGRAM (GQPP) FOR AREAS H AND I SEWER IMPROVEMENT PROJECT

It is recommended the Board adopt Resolution 2021-15, certifying and adopting the Final Initial Study and Mitigated Negative Declaration for the Areas H and I Sewer Improvement Project, adopt the Mitigation Monitoring and Reporting Program (MMRP), and authorize the General Manager to sign and file a Notice of Determination (NOD) with the County of Riverside within five days of the Board meeting.

10. ACCEPTANCE OF THE NORTH INDIAN CANYON SEWER PROJECT

It is recommended the Board accept the North Indian Canyon Sewer Project as complete and authorize the release of retention money held for Downing Construction, Inc. in the amount of 5% of the approved contract amount, thirty-five days after filing the Notice of Completion (NOC).

DISCUSSION ITEMS

11. CRITICAL SERVICES CENTER AND ADMINISTRATION BUILDING UPDATE

12. MSWD REGIONAL WATER RECLAMATION FACILITY UPDATE

13. GROUNDWATER SUSTAINABILITY PLAN UPDATE

Mission Creek Subbasin and San Gorgonio Pass Subbasin

CONSENT AGENDA

Consent agenda items are expected to be routine and non-controversial, to be acted upon by the Board at one time, without discussion. If a member would like an item to be handled separately, it will be removed from the Consent Agenda for separate action.

14. APPROVAL OF MINUTES

It is recommended to approve the minutes as follows:

Study Session - July 15, 2021

Board Meeting - July 19, 2021

Special Meeting - August 16, 2021

15. REGISTER OF DEMANDS

The register of demands (JULY) totaling \$ 2,634,687.73

The register of demands (AUGUST) totaling \$ 1,939,972.47

16. BOARD COMPENSATION

It is recommended to authorize Board compensation for the following:
Participation in the Palm Springs Unified School District Legislative Breakfast – October 8, 2021

CORRESPONDENCE

17. THANK YOU LETTER - GERALD MCKENNA

DIRECTOR'S REPORTS

18. UPCOMING EVENTS & DIRECTOR REPORTS

REPORTS

19. GENERAL MANAGER'S REPORT

20. DISTRICT COUNSEL COMMENTS

21. DIRECTOR COMMENTS

CLOSED SESSION

22. CONFERENCE WITH LEGAL COUNSEL REGARDING EXISTING LITIGATION

pursuant to Government Code Section 54956.9(d)(1)

One Case: Case No. RIC 2003782

(George Padilla and Sharon Moreno vs. Mission Springs Water District)

23. REPORT ON ACTION TAKEN DURING CLOSED SESSION

24. ADJOURN

If you need special assistance to participate in this meeting, please contact the Executive Assistant at (760) 660-4403 at least 48 working hours prior to the meeting.

ANY DISCLOSABLE PUBLIC RECORDS RELATED TO AN OPEN SESSION ITEM ON A REGULAR MEETING AGENDA AND DISTRIBUTED BY MISSION SPRINGS WATER DISTRICT TO ALL OR A MAJORITY OF THE BOARD OF DIRECTORS LESS THAN 72 HOURS PRIOR TO THAT MEETING ARE AVAILABLE FOR PUBLIC INSPECTION AT THE DISTRICT OFFICE, 66575 SECOND STREET, DESERT HOT SPRINGS, CALIFORNIA DURING NORMAL BUSINESS HOURS AND MAY ALSO BE AVAILABLE ON THE DISTRICT'S WEBSITE AT <https://www.mswd.org/board.aspx>. NOTE: THE PROCEEDINGS MAY BE AUDIO AND VIDEO RECORDED.

CERTIFICATION OF POSTING

I certify that on or before September 13, 2021, a copy of the foregoing notice was posted near the regular meeting place of the Board of Directors of Mission Springs Water District at least 72 hours in advance of the meeting (Government Code Section 54954.2).



Arden Wallum
Secretary of the Board of Directors

AGENDA REPORT
REGULAR BOARD MEETINGS OF SEPTEMBER 16 & 20, 2021

HUMAN RESOURCES REPORT

PERSONNEL ACTIVITY FOR THE PERIOD JULY 1 - 31, 2021

NEW HIRES

None

ANNIVERSARIES

Lee Boyer	Chief Plant Operator	21 Years
Jesus Gonzalez	Field Service Representative I	17 Years
Arden Wallum	General Manager	16 Years
Greg Chapman	Wastewater Treatment Operator II	15 Years
Claudia Lopez	Accounting Technician	1 Year

PROMOTIONS

None

CERTIFICATIONS/EDUCATIONAL ACCOMPLISHMENTS

None

PERSONNEL ACTIVITY FOR THE PERIOD AUGUST 1 - 31, 2021

NEW HIRES

Jason Martinez	Field Operations Technician I
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ANNIVERSARIES

Joe Hernandez	Field Service Representative II	14 Years
Shane Wienecke	Wastewater Treatment Operator II	15 Years

PROMOTIONS

None

CERTIFICATIONS/EDUCATIONAL ACCOMPLISHMENTS

None

AGENDA STAFF REPORT

MEETING NAME: REGULAR BOARD MEETING
MEETING
DATE(S): SEPTEMBER 16 & 20, 2021
FROM: Dori Petee – Executive Assistant



FOR: ACTION X DIRECTION INFORMATION

ASSOCIATION OF CALIFORNIA WATER AGENCIES REGION 9 ELECTION

STAFF RECOMMENDATION

At the Boards discretion, either concur with the Region 9 Nominating Committee’s recommended slate of offices, or concur on individual candidates for Chair, Vice Chair, and five (5) Board Members, and direct the Board President to submit the Ballot.

SUMMARY

Region 9 Board members are elected to represent the issues, concerns and needs of your region. The Region 9 chair and vice chair will serve on ACWA’s Board of Directors for the next two-year term beginning January 1, 2022. Additionally, the newly elected chair and vice chair will make the Region 9 committee appointment recommendations to the ACWA president for the 2022-2023 term. Also, either the chair or vice chair will hold a seat on the ACWA Finance Committee.

FISCAL IMPACT AND STRATEGIC PLAN IMPLEMENTATION

None

ATTACHMENTS

ACWA Region 9 Board Ballot 2022-2023 Term
Letter of Support for Carol Lee Gonzales-Brady

OFFICIAL REGION 9 Board Ballot

2022-2023 TERM

Item 7.



Please return completed ballot by Sept. 30, 2021

E-mail: regionelections@acwa.com
Mail: ACWA
980 9th Street, Suite 1000
Sacramento, CA 95814

General Voting Instructions:

- 1 You may either vote for the slate recommended by the Region 9 Nominating Committee or vote for individual region board members (please note rules & regulations for specific qualifications). Mark the appropriate box to indicate your decision.
- 2 Complete your agency information. The authorized representative is determined by your agency in accordance with your agency's policies and procedures.

Region 9 Rules & Regulations:

The chair and vice chair shall be elected, one from each area, and the positions shall be rotated between the Western and Arid areas of Region 9. For the 2022-'23 term, the chair shall be from the Western area.

SAVE & SUBMIT

CLEAR FORM

1

Nominating Committee's Recommended Slate

- I concur with the Region 9 Nominating Committee's recommended slate below.

CHAIR:

- **Harvey R. Ryan**, Board Member, Elsinore Valley Municipal Water District (Western)

VICE CHAIR:

- **G. Patrick O'Dowd**, Executive Director, Salton Sea Authority (Arid)

BOARD MEMBERS:

- **Luis Cetina**, Vice President, Cucamonga Valley Water District (Western)
- **Brenda Dennstedt**, President, Western Municipal Water District (Western)
- **Norma Sierra Galindo**, Board of Directors, Imperial Irrigation District (Arid)
- **Carol Lee Gonzales-Brady**, President, Rancho California Water District (Western)
- **James Morales Jr.**, Director, East Valley Water District (Western)

OR

Individual Board Candidate Nominations

(See Rules & Regulations before selecting)

- I do not concur with the Region 9 Nominating Committee's recommended slate. I will vote for individual candidates below as indicated.

CANDIDATES FOR CHAIR: (CHOOSE ONE)

- James Morales Jr.**, Director, East Valley Water District (Western)
- Harvey R. Ryan**, Board Member, Elsinore Valley Municipal Water District (Western)

CANDIDATES FOR VICE CHAIR: (CHOOSE ONE)

- G. Patrick O'Dowd**, Executive Director, Salton Sea Authority (Arid)

CANDIDATES FOR BOARD MEMBERS: (MAX OF 5 CHOICES)

- Luis Cetina**, Vice President, Cucamonga Valley Water District (Western)
- Brenda Dennstedt**, President, Western Municipal Water District (Western)
- Norma Sierra Galindo**, Board of Directors, Imperial Irrigation District (Arid)
- Carol Lee Gonzales-Brady**, President, Rancho California Water District (Western)
- James Morales Jr.**, Director, East Valley Water District (Western)
- G. Patrick O'Dowd**, Executive Director, Salton Sea Authority (Arid)
- Harvey R. Ryan**, Board Member, Elsinore Valley Municipal Water District (Western)

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AGENCY NAME

AUTHORIZED REPRESENTATIVE

DATE



July 27, 2021

Nancy S. Wright
Board President
MISSION SPRINGS WATER DISTRICT
66575 Second Street
Desert Hot Springs, CA 922403711

Dear Ms. Wright:

On behalf of Rancho California Water District (Rancho Water), it is with great honor that I am requesting your agency's support and vote for Carol Lee Gonzales-Brady for re-election to the Region 9 Board member position for the Association of California Water Agencies (ACWA). We are fortunate to have such a qualified candidate in Director Gonzales-Brady, who has the Rancho Water Board's unanimous support for continuing to serve in this role.

As the President of the Rancho California Water District Board of Directors, Director Gonzales-Brady provides a key presence in our community. However, the breadth of her focus extends far beyond our service territory and encompasses the broader needs of Region 9 and the water community throughout the State. Director Gonzales-Brady has formed productive working relationships throughout our region, the water community and California, which allows her to champion Region 9's positions on water legislative issues.

Attached you will find a candidate's statement summarizing Director Gonzales-Brady's qualifications. She has a true passion for the water industry and would like to continue to serve the region. Director Gonzales-Brady is happy to meet with anyone to discuss her commitment to serving you and your district.

I encourage you to forward this information to your Board of Directors and consider supporting her for the ACWA Region 9 Board position. Rancho Water has the highest confidence in Director Gonzales-Brady and her proven leadership abilities can continue to help guide ACWA Region 9 to success. Please do not hesitate to contact me if you need additional information or if you would like her to contact your Board of Directors. Thank you for your consideration in this matter.

Sincerely,

RANCHO CALIFORNIA WATER DISTRICT

Robert S. Grantham
General Manager
granthamr@ranchowater.com

Enclosure

Board of Directors

Carol Lee Gonzales-Brady
President

John V. Rossi
Senior Vice President

Brian J. Brady

Angel Garcia

John E. Hoagland

William E. Plummer

Bill Wilson

Officers

Robert S. Grantham
General Manager

Eva Plajzer, P.E.
Assistant General Manager
Engineering and Operations

Richard R. Aragon, CPFO
Assistant General Manager
Chief Financial
Officer/Treasurer

Jason A. Martin
Director of Administration

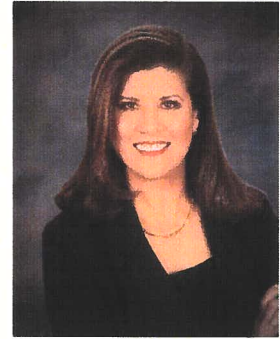
Eileen Dienzo
Director of Human Resources

Kelli E. Garcia
District Secretary

James B. Gilpin
Best Best & Krieger LLP
General Counsel

Carol Lee Gonzales-Brady

Candidate Statement for ACWA Region 9 Board



As you review our Nominating Committee's recommended slate for the 2022-2023 term of the Region 9 Board, I am pleased to introduce myself and ask for your concurring vote of support.

Elected to the Rancho California Water District Board (Rancho Water/District) in 2017, I currently serve as the Board's President and previously served as Senior Vice President in 2020. I also currently serve on the Association of California Water Agencies (ACWA) Region 9 Board and represent the District as the Alternate Representative to the ACWA/Joint Powers Insurance Authority. Prior to joining Rancho Water's Board, I was appointed by the Riverside County Board of Supervisors to the Board of Directors of the Temecula-Elsinore-Anza-Murrieta Resource Conservation District and worked with developers, California Fish and Wildlife, Corps of Engineers, County Flood Control and Bureau of Reclamation.

My professional career in procurement, manufacturing and construction has spanned a number of federally regulated industries including electric and water utilities. A native Californian and vineyard owner, I'm active in my community and associations such as Southwest California Legislative Council, an advocacy coalition and was recently elected to the Board of Trustees, Water Segment Southern California Water Coalition.

The Districts within our Region are dealing with many challenges, in addition to the critical issues facing our industry as a whole. Several of these concerns are shared across other industries, agencies and service entities, as articulated during ACWA conferences and in a number of other forums I've attended. There is general consensus that strengthening communication, evaluating problems from a broad perspective and thinking "outside the box" will be key as leaders work together to develop solutions.

I look forward to building upon the work of the past Boards in promoting and advancing the priorities, initiatives and interests of ACWA and Region 9. Thank you for your support, and I look forward to serving you.



WORKING FOR OUR COMMUNITY

42135 Winchester Road

Temecula, CA 92590

(951) 296-6900

www.ranchowater.com

AGENDA STAFF REPORT



MEETING NAME: REGULAR BOARD MEETING
MEETING
DATE(S): SEPTEMBER 16 & 20, 2021
FROM: Brian Macy – Assistant General Manager

FOR: ACTION X DIRECTION INFORMATION

RESOLUTION 2021-14
CERTIFICATION AND ADOPTION OF THE FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION
FOR THE VISTA RESERVOIR NO. 2 PROJECT

STAFF RECOMMENDATION

Board adoption of Resolution 2021-14, certifying and adopting the Final Initial Study (IS) and Mitigated Negative Declaration (MND) for the Vista Reservoir No. 2 Project, and adopt the Mitigation Monitoring and Reporting Program (MMRP) and authorize the General Manager to sign and file a Notice of Determination (NOD) with the County of Riverside within five days of the Board meeting.

SUMMARY

Mission Springs Water District (MSWD), as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to develop a second reservoir at the exiting Vista Reservoir site. MSWD’s decision to implement the project is a discretionary decision which qualifies as a “project” under CEQA. Based on the information in the project IS, MSWD determined that a MND was the appropriate environmental determination for this project to comply with CEQA.

ANALYSIS

The MND is a negative declaration that incorporates mitigation measures into the proposed project that will avoid or mitigate impacts to a point of no significant impact on the environment would occur. The IS evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agricultural and Forestry Resources, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, Recreation, and Transportation. Regarding Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire, the IS determined the implementation of mitigation measures (MMRP) would reduce project impacts to a less than significant level. MSWD received two written comment letters, one from the California Department of Fish and Wildlife (CDFW) and one from Colorado River Basin Regional Water Quality Control Board (RWQCB). Responses to comments have been provided to each agency and are made a part of the final IS/MND documentation.

FISCAL IMPACT AND STRATEGIC PLAN IMPLEMENTATION

The certification and adoption of the Final IS / MND, MMRP, and NOD has no direct fiscal impact. However, implementation of the MMRP during construction may have fiscal impacts, which are considered a part of the approved project budget.

ATTACHMENTS

- Resolution 2021-14
- Final Initial Study (including MMRP and Response to Comments)
- Mitigated Negative Declaration
- Notice of Determination

RESOLUTION NO. 2021-14

**BOARD OF DIRECTORS OF THE MISSION SPRINGS WATER DISTRICT
APPROVING THE INITIAL STUDY AND ADOPTING A MITIGATED NEGATIVE
DECLARATION FOR THE VISTA RESERVOIR NO. 2 PROJECT
(SCH# 2021050019)**

WHEREAS, the California Environmental Quality Act (CEQA) of 1972, as amended, requires that prior to approval of any project, the Lead Agency shall consider the potential impacts and effects of said project, consider alternatives to the project, and identify mitigation measures necessary to reduce or eliminate potential significant impacts of the project on the environment; and

WHEREAS, the Mission Springs Water District is the Lead Agency for the Mitigated Negative Declaration (MND) and has prepared an Initial Study (IS) for the Vista Reservoir No. 2 Project in accordance with CEQA and its implementing guidelines; and

WHEREAS, the District issued a Notice of Availability of a MND which assessed the project's potential environmental impact(s). Said notice was distributed to the State Clearing House and nine other local agencies. The notice stated that the MND would be available for public review and comment from April 12, 2021, through May 11, 2021; and

WHEREAS, the MND determined that the potential adverse environmental impacts are either non-significant without mitigation or can be reduced to a level of insignificance with mitigation, including the following: air quality construction impacts, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise during construction, and utilities and service systems; and

WHEREAS, the District Board of Directors, has received and has reviewed the MND, consisting of the Initial Study, all Responses to Comments, the Mitigation Monitoring and Reporting Program, and all other material in the administrative record; and

WHEREAS, pursuant to duly given public notice, the Mission Springs Water District Board of Directors has held a full and fair public hearing on September 20, 2021, concerning the Vista Reservoir No. 2 Project and the MND and has considered all written and oral comments and testimony relating thereto and is fully advised thereon.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED by the Mission Springs Water District Board of Directors as follows:

Section 1. A full and fair public meeting having been held on the MND prepared in connection with the Vista Reservoir No. 2 Project, as stated in the recitals herein, the Mission Springs Water District Board of Directors hereby approves and adopts the MND and the Mitigation Monitoring and Reporting Program.

The District further finds that all changes or alterations that have been required in connection with the above Project have and/or will be incorporated which will avoid or

substantially lessen the potential significant environmental effects identified in the final MND. The District further finds that the revised mitigation measures included in the final MND are more effective in mitigating potential significant effects and that these revised measures will not cause any potentially significant effects on the environment.

Section 2. The Mission Springs Water District hereby authorizes and directs the: (1) filing and posting of a Notice of Determination (NOD) as required by Section 21152 of the Public Resources Code, and that filing required pursuant to Section 21089 (b) of the Public Resources Code by the General Manager with the Riverside County Clerk and the State Clearinghouse, Governor’s Office of Planning and Research; and (2) Payment of the NOD and California Department of Fish and Wildlife filing fees.

Section 3. The Mission Springs Water District hereby adopts the mitigation measures recommended as conditions of project approval as presented in the Mitigation Monitoring and Reporting Program, and the Mitigation Monitoring and Reporting Program prepared for the purpose of monitoring the mitigation measures which have been adopted or made a condition of project approval as described in Section 1 of this Resolution and all as more fully described in the Mitigation Monitoring and Reporting Program.

Section 4. This Resolution shall take effect upon adoption by the Mission Springs Water District Board of Directors.

ADOPTED this ____ day of September 2021, by the following vote:

- Ayes:
- Noes:
- Abstain:
- Absent:

ATTEST:

Nancy Wright
 President of Mission Springs Water District
 and its Board of Directors

Arden Wallum
 Secretary of Mission Springs Water District
 and its Board of Directors

**FINAL INITIAL STUDY / MITIGATED NEGATIVE
DECLARATION**

FOR THE

**MISSION SPRINGS WATER DISTRICT
VISTA RESERVOIR PROJECT**

Prepared for:

Mission Springs Water District
66575 Second Street
Desert Hot Springs, California 92240

Prepared by:

Tom Dodson & Associates
P.O. Box 2307
San Bernardino, California 92406
(909) 882-3612

July 2021

TABLE OF CONTENTS

Conformed Copy of Notice of Determination

Comment Letters and Responses to Comments

Mitigation Monitoring and Reporting Program

Draft Initial Study (w/ Appendices)



**CONFORMED COPY OF
NOTICE OF DETERMINATION**

COMMENT LETTERS AND RESPONSES TO COMMENTS

TOM DODSON & ASSOCIATES

PHYSICAL ADDRESS: 2150 N. ARROWHEAD AVENUE SAN BERNARDINO, CA 92405

MAILING ADDRESS: PO BOX 2307, SAN BERNARDINO, CA 92406

TEL (909) 882-3612 • FAX (909) 882-7015

E-MAIL TDA@TDAENV.COM

**MEMORANDUM**

July 9, 2021

From: Kaitlyn Dodson-Hamilton

To: Mr. Danny Friend, Director of Engineering and Operations

Subject: Completion of the Mitigated Negative Declaration for the Vista Reservoir No. 2 Project (SCH No. 2021050019)

Mission Springs Water District (MSWD or District) received 2 written comment letters on the proposed Mitigated Negative Declaration for the Vista Reservoir No. 2 Project. CEQA requires a Negative Declaration to consist of the Initial Study; copies of the comments; any responses to comments as compiled on the following pages; and any other Project-related material prepared to address issues evaluated in the Initial Study.

For this Project, the original Initial Study (IS) will be utilized as one component of the Final Mitigated Negative Declaration (MND) package. The attached responses to comments, combined with the Initial Study and the Mitigation Monitoring and Reporting Program, constitute the Final MND package that will be used by the District to consider the environmental effects of implementing the proposed Project.

The following parties submitted comments. The comments in this letter are addressed in the attached Responses to Comments:

1. California Department of Fish and Wildlife (CDFW)
2. Colorado River Basin Regional Water Quality Control Board (RWQCB)

Because mitigation measures are required for this Project to reduce potentially significant impacts to a less than significant level, the Mitigation Monitoring and Reporting Program (MMRP) attached to this package is required to be adopted as part of this Final MND package. The MMRP has been incorporated by reference to this package for approval and implementation. The District consideration of the proposed Project and adoption of the Mitigated Negative Declaration will occur at a hearing, the date for which has not yet been scheduled.

Do not hesitate to give me a call if you have any questions regarding the contents of this package.



Kaitlyn Dodson-Hamilton
Attachments



Comment Letter #1

May 28, 2021
Send via email

Mr. Danny Friend
Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

Subject: Initial Study and Draft Mitigated Negative Declaration (IS/MND)
Mission Springs Water District Vista Reservoir No. 2 Project
State Clearinghouse No. 2021050019

Dear Mr. Friend:

1-1

The California Department of Fish and Wildlife (CDFW) appreciates the opportunity to provide comments and recommendations on the Initial Study and draft Mitigation Negative Declaration for the Mission Springs Water District Vista Reservoir No. 2 Project (Project), State Clearinghouse No. 2021050019. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

1-2

CDFW is California’s Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW’s lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in “take” as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish &

**RESPONSE TO COMMENT
LETTER #1
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

- 1-1 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. The District acknowledges the role of the California Department of Fish and Wildlife's (CDFW) as a commenter on this Project.

- 1-2 The District acknowledges the CDFW's role as a Trustee Agency, and as Responsible Agency under CEQA for this Project, and understands that authorization as provided by the Fish and Game Code for several Project-related activities may be required.

1-2 cont'd | G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

1-3 | The Project is located along Valencia Drive in the City of Desert Hot Springs. Mission Springs Water District (District) is proposing to develop a second reservoir at the existing 1.23-acre Vista Reservoir site. The proposed Vista Reservoir No. 2 Project includes a new 300,000-gallon reservoir approximately 30 feet northwest of the existing reservoir. Ultimately the installation of the new 300,000-gallon reservoir at the Vista Reservoir site will require installation of the following: retaining walls and hillside slope stabilization, stormwater management BMPs, installation of a new access road, relocation of the existing hydropneumatic station and the electrical cabinet, grading, wrought iron and chain link fence, and a new 300,000-gallon welded steel water storage reservoir and related piping. Design and construction of the Project is anticipated to be completed in approximately 6 months. Construction is anticipated to start in the third quarter of 2021.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the District in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

Burrowing Owls. The Draft IS/MND identified suitable burrowing owl habitat within and adjacent to the proposed Project site. Mitigation Measure BIO-2 in the Draft IS/MND outlines actions that will be taken if a burrowing owl is found to occupy the site. CDFW recommends the following revision to Mitigation Measure BIO-2, with additions in **bold**:

BIO-2 If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:

1-4 | **The District shall notify CDFW within three business days of determining that a burrowing owl is occupying the site to discuss the observed location, activities and behavior of the burrowing owl(s) and appropriate avoidance and minimization measures.**

Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.

If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.

If relocation of the owls is approved for the site by CDFW, CDFW shall require

the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.

The relocation plan must include all of the following and as indicated in Appendix E:

- The location of the nest and owls proposed for relocation.
- The location of the proposed relocation site.
- The number of owls involved and the time of year when the relocation is proposed to take place.
- The name and credentials of the biologist who will be retained to supervise the relocation.
- The proposed method of capture and transport for the owls to the new site.
- A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).

The applicant shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing Project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.

Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.

A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

1-4
cont'd

- 1-3 The Project description summary outlined in this comment are accurate.
- 1-4 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. The District appreciates CDFW's feedback on the potential fish and wildlife (biological) resources that may exist within the Project site. The District appreciates CDFW's recommended changes to BIO-2, as it pertains to Burrowing Owl. As such, the District concurs with intent of CDFW's modifications to Mitigation Measure (MM) **BIO-2** proposed in this comment, and proposes the following modified measure (modifications are underlined), which is hereby incorporated by reference into the Final IS/MND.

BIO-2 *If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:*

The District shall notify CDFW within three business days of determining that a burrowing owl is occupying the site to discuss the observed location, activities and behavior of the burrowing owl(s) and appropriate avoidance and minimization measures.

Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.

If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.

If relocation of the owls is approved for the site by CDFW, CDFW shall require the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.

The relocation plan must include all of the following and as indicated in Appendix E:

- *The location of the nest and owls proposed for relocation.*
- *The location of the proposed relocation site.*
- *The number of owls involved and the time of year when the relocation is proposed to take place.*
- *The name and credentials of the biologist who will be retained to supervise the relocation.*
- *The proposed method of capture and transport for the owls to the new site.*
- *A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).*

The applicant shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing Project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.

Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the

owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.

A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

The above modification constitutes a modification to a mitigation measure that does not require recirculation pursuant to CEQA Section 15073.5(c). The above measure would be equal to or more effective than that which was incorporated into the Initial Study.

Lake and Streambed Alteration Program.

The Draft IS/MND indicates that no intermittent or ephemeral dry washes that meet the definition of State waters occur on the site, and therefore no regulatory permit from CDFW is required (p. 27). In review of satellite imagery, there is evidence of at least two ephemeral streams extending into the Project site from the foothills located east of the Project site. Given this evidence, CDFW recommends that the Draft IS/MND is revised to indicate that a notification of streambed alteration will be submitted to CDFW for review, which includes mitigation measures to offset any unavoidable impacts to fish and wildlife resources subject to Fish and Game Code Section 1600 et seq.

1-5

Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or Deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify your Project that would eliminate or reduce harmful impacts to fish and wildlife resources.

1-6

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code § 21065). To facilitate issuance of an LSA Agreement, if necessary, the Draft IS/MND should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to <https://www.wildlife.ca.gov/Conservation/LSA/Forms>.

CDFW recommends adding the following mitigation measure to the Draft IS/MND, highlighted in **bold**:

BIO-4: Prior to the initiation of Project activities, the District shall provide to the City written correspondence from the California Department of Fish and Wildlife (CDFW) confirming that CDFW has either executed a Streambed Alteration Agreement (Agreement) or informed the Project that an Agreement is not needed.

- 1-5 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. Note that the field survey conducted by Jacobs, which informed the Biological Resources Assessment, determined that no intermittent or ephemeral dry washes that meet the definition of State waters occur on the site, and therefore no regulatory permit from CDFW is required. CDFW indicates that they have performed an aerial review of the Project site, but a qualified biologist reviewed the site in-person for the presence of riverine/riparian/wetland habitat and jurisdictional waters (i.e., WoUS), as regulated by the United States Army Corps of Engineers (USACE) and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW and determined that there are no drainage features with a discernable bend and bank, riparian habitat, or other features that would fall under Section 1600 of the FGC. Therefore, the District respectfully disagrees that there is evidence of ephemeral streams that would require notification of a streambed alteration to CDFW, as such the District does not anticipate that any notification will be provided.
- 1-6 Refer to response to comment 1-5, above. Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. As stated above, the proposed Project does not require notification to CDFW under Section 1602 of the Fish and Game Code. As such, the District has elected to omit the recommended mitigation measure from incorporation into the Final IS/MND. The District appreciates CDFW's explanation of LSA Agreements.

Coachella Valley Multiple Species Conservation Plan.

1-7 CDFW issued Natural Community Conservation Plan Approval and Take Authorization for the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) per Section 2800, *et seq.*, of the California Fish and Game Code on September 9, 2008. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit.

Compliance with approved habitat plans, such as the CVMSHCP, is discussed in CEQA. Specifically, Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the CVMSHCP as a result of this Project is necessary to address CEQA requirements.

Land Use Adjacency Guidelines

1-8 CVMSHCP includes Land Use Adjacency Guidelines to avoid or minimize indirect effects from Development adjacent to or within the Conservation Areas (Section 4.5 of the CVMSHCP). Indirect effects may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators such as dogs and cats. This project should address Land Use Adjacency Guidelines that minimize edge effects, such as lightning and noise impacts. The project site is located within 100 feet of the Upper Mission Creek/Big Morongo Canyon Conservation Area within the CVMSHCP. CDFW recommends that the Draft IS/MND is revised to include measures to avoid or minimize indirect effects of the project to the nearby Conservation Area. Avoidance and minimization measures should consider the indirect effects both during project construction activities and over the long-term operations and maintenance of the project facility. CDFW recommends the addition of the following Mitigation Measure to the Draft IS/MND, highlighted in **bold**:

BIO-5 During both project construction activities and the long-term operations and maintenance of the Project facility, the District shall minimize indirect effects to the Upper Mission Creek/Big Morongo Canyon Conservation Area by having all artificial lighting shielded and directed away from the Conservation Area.

ENVIRONMENTAL DATA

1-9 CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). Information can be submitted online or via completion of the

- 1-7 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. The District appreciates CDFW's input and explanation of the Coachella Valley Multiple Species Conservation Plan (CVMSCP) as it pertains to CEQA.
- 1-8 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. The Biological Resource Assessment and Jurisdictional Delineation provided as Appendix 2 to the IS/MND concluded that, the proposed 1.23-acre reservoir site is entirely outside any Conservation Areas and will not impact any Biological Corridors and Linkages or Essential Ecological Processes. Finally, the Project is not adjacent to a Conservation Area. Therefore, no conservation or avoidance measures are expected, and the Project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP. The District will pay the MSHCP fees and restrict all Project related impacts to the Project site and/or other areas outside of the Conservation Areas.

The CVMSHCP indicates that, "adjacent means sharing a common boundary with any parcel in a Conservation Area. Such indirect effects are commonly referred to as edge effects, and may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators such as dogs and cats" (page 4-176 of the CVMSHCP).¹ As indicated in CDFW's comment, the proposed Project site is an existing facility that is located within 100 feet of the Upper Mission Creek/Big Morongo Canyon Conservation Area and also shares a parcel boundary with the Conservation Area, thus meeting the criteria of "Adjacent" to a Conservation Area within the CVMSHCP. The proposed Project does not require any new artificial lighting beyond that which exists on an as needed basis at the site at present. No night time construction is anticipated as it is not allowed by the City's Municipal Code. As such, the Project as it is currently planned meets the requirements of the recommended measure, and MSWD will commit to ensure that, should any lighting be required in an emergency situation, their emergency and standard operational procedures shall incorporate that all artificial lighting shielded and directed away from the Conservation Area. As the Lead Agency, the District has the authority to impose construction conditions on future Projects they propose; therefore, the District will be required to comply with the intent of the recommended measure posed in this comment.

- 1-9 The District will require the Applicant to report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The link to CNDDDB field survey form provided will be retained in the Project file, as will the email address that is provided in this comment. Additionally, the link pertaining to the types of information reported to CNDDDB will be retained in the Project file.

¹<https://cvmshcp.org/Plan%20Documents/11.%20CVAG%20MSHCP%20Plan%20Section%204.0.pdf>

Danny Friend, Director of Engineering and Operations
Mission Springs Water District
May 28, 2021
Page 6 of 8

1-9
cont'd

CNDDDB field survey form at the following link:
<https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link:
<https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

1-10

FILING FEES


The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

1-11

CONCLUSION

CDFW appreciates the opportunity to comment on the Draft IS/MND for the Mission Springs Water District Vista Reservoir No. 2 Project, and requests that the District address CDFW's comments and concerns prior to adoption of the draft Mitigated Negative Declaration. If you should have any questions pertaining to these comments, please contact Jacob Skaggs at jacob.skaggs@wildlife.ca.gov.

Sincerely,

DocuSigned by:

DF423498814B441...

For Scott Wilson
Environmental Program Manager
Inland Deserts Region

ec: Heather Pert, Senior Environmental Scientist, Supervisor
Inland Deserts Region
heather.pert@wildlife.ca.gov

HCPB CEQA Coordinator
Habitat Conservation Planning Branch
ceqacommentletters@wildlife.ca.gov

Office of Planning and Research, State Clearinghouse, Sacramento
state.clearinghouse@opr.ca.gov

- 1-10 The District understands the assessment of CDFW filing fees, and understands that MSWD will be responsible for the payment of a filing fee upon filing the Notice of Determination for this Project.
- 1-11 Thank you for your comments and your time. The contact information provided in this comment will be retained in the Project file.

ATTACHMENT 1

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PURPOSE OF THE MMRP

The purpose of the MMRP is to ensure compliance with mitigation measures during project implementation. Mitigation measures must be implemented within the time periods indicated in the table below.

TABLE OF MITIGATION MEASURES

The following items are identified for each mitigation measure: Mitigation Measure, Implementation Schedule, and Responsible Party for implementing the mitigation measure. The Mitigation Measure column summarizes the mitigation requirements. The Implementation Schedule column shows the date or phase when each mitigation measure will be implemented. The Responsible Party column identifies the person or agency that is primarily responsible for implementing the mitigation measure.

1-12

Mitigation Measure	Implementation Schedule	Responsible Party
BIO-2: [...] The District shall notify CDFW within three business days of determining that a burrowing owl is occupying the site to discuss the observed location, activities and behavior of the burrowing owl(s) and appropriate avoidance and minimization measures. [...]	During pre-construction surveys and during project implementation	Mission Springs Water District
BIO-4: Prior to the initiation of project activities, the District shall provide to the City written correspondence from the California Department of Fish and Wildlife (CDFW) confirming that CDFW has either executed a Streambed Alteration Agreement (Agreement), or informed the Project that an Agreement is not needed.	Prior to initiation of project activities	Mission Springs Water District

1-12
cont'd

<p>BIO-5: During both project construction activities and the long-term operations and maintenance of the Project facility, the District shall minimize indirect effects to the Upper Mission Creek/Big Morongo Canyon Conservation Area by having all artificial lighting shielded and directed away from the Conservation Area.</p>	<p>During project construction activities and during long-term operations and maintenance of the project facility</p>	<p>Mission Springs Water District</p>
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- 1-12 The District has addressed the mitigation measures requested to be incorporated into the Final IS/MND by CDFW in comments 1-4, 1-6, and 1-8. The District has incorporated the proposed modifications to MM **BIO-2** to address CDFW's recommendations in comment 1-4. The District disagrees with CDFW's determination the features subject to CDFW Fish and Game Code, Sections 1600 / 1602 exist within the Project site, and as such the District has elected not to incorporate MM **BIO-4** into the final IS/MND. Response to comment 1-8 addresses CDFW's proposed MM **BIO-5**, which the District will implement through additions to emergency and standard operational procedures. The items listed under Schedule and Responsible Party as they pertain to the MMs that will be incorporated into the Final IS/MND will be inputted into the MMRP. The City appreciates CDFW's initiative in developing an MMRP for their proposed mitigation measures.

Comment Letter #2

Environmental Review Checklist
Mission Spring Water District
Vista Reservoir No. 2 Project
May 2021

- [] The proposal does not provide enough information to meet the State Board On Site Wastewater Treatment Systems (Septic Systems) Policy and Local Agency Management Program. The information is accessible on the Regional Board Homepage (https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/owts/)
- [] The proposed project is located in an area where septic tank disposal systems are prohibited unless an exemption is requested and granted by the Regional Board.
- 2-1 [yes] The project may require development of Stormwater Pollution Prevention Plan and NPDES General Industrial Stormwater Permit. This permit is accessible on the State Board’s Homepage (https://www.waterboards.ca.gov/water_issues/programs/stormwater/). Best Management Practices must be used to mitigate project impacts.
- [yes] Should the construction encompass over one acre of soil disturbance, a Stormwater Pollution Prevention Plan and a NPDES General Construction Stormwater Permit will be required. This permit is accessible on the State Board’s Homepage (https://www.waterboards.ca.gov/water_issues/programs/stormwater/). Best Management Practice must be used to mitigate project impacts.

See comments below

- [yes] The project appears to propose a discharge of waste to surface water. Therefore, an NPDES permit for the project may be necessary.
- [] The proposal contains features which may need to be regulated by the Regional Board. Please review the Water Quality Control Plan for the Colorado River Basin Water Board (Basin Plan) accessible on the Regional Board’s homepage (https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/).
- 2-2 [] Please require written confirmation that the project proponent obtain Regional Board concurrence before approving this project.
- [] The project may require a Federal Clean Water Act Section 401 Water Quality Certification or State dredge or fill Waste Discharge Requirements (WDRs).. The information can be accessible on the State Board’s Homepage (https://www.waterboards.ca.gov/water_issues/programs/cwa401/) or Regional

**RESPONSE TO COMMENT
LETTER #2
COLORADO RIVER BASIN REGIONAL WATER QUALITY CONTROL BOARD**

- 2-1 The District appreciates the Colorado River Basin Regional Water Quality Control Board's (RWQCB) input via their Environmental Review Checklist. The District agrees that (a) the Project may require development of Stormwater Pollution Prevention Plan and NPDES General Industrial Stormwater Permit; and (b), should the construction encompass over one acre of soil disturbance, a Stormwater Pollution Prevention Plan and a NPDES General Construction Stormwater Permit will be required. This is addressed in the Project Description on page 4 under "10. Other agencies whose approval is required."
- 2-2 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. The District agrees that (a) The Project appears to propose a discharge of waste to surface water. Therefore, an NPDES permit for the Project may be necessary; and, (b) the Project may result in spills that will adversely impact ground and surface waters. The Project has included MM **HAZ-1** on pages 42-43 of the IS/MND, which addresses accidental release of hazardous materials.

Board's Homepage
(https://www.waterboards.ca.gov/coloradoriver/water_issues/programs/401_certification/)

2-2
cont'd

[] The proposal does not provide specific information on impacts to wetlands or waters of the state. The Environmental Documentation needs to quantify these impacts. The Environmental Document must discuss alternatives such as avoidance, minimize disturbance and mitigation. Mitigation must be identified in environmental document including timing of construction.

[] Regional Board staff has determined that this project will not have a significant effect on water quality as proposed.

[] Regional Board staff will make additional comments after a more detailed review is complete.

[yes] Project may result in spills that will adversely impact ground and surface waters. Include a spill contingency plan in environmental document regarding mitigation.

[X] Other

2-3

This project doesn't appear to clearly specify the acreage of the project. On page one, it refers to the existing reservoir as being 1.23 acres in size, but in the description for the proposed reservoir (same page) it fails to mention the size of the proposed reservoir. The closest reference I could find was on page 23, where it mentions "this site" as being 1.2 acres, but I don't want to assume. Judging by the map, it appears to be well over an acre in size.

Colorado River Basin Board Contacts:

2-4

Kai Dunn, Unit Chief, National Pollutant Discharge Elimination System Permits
(760) 776-8986, Kai.Dunn@waterboards.ca.gov

Re: Discharges to surface waters.
Stormwater Pollution Prevention Plan and NPDES General Construction Permit
NPDES General Industrial Stormwater Permit

- 2-3 Apologies that the acreage of the Project site in the Initial Study was not more clear. The entire Project site, as mapped by the Riverside County Parcel Report viewer,² is 1.23 acres in size.
- 2-4 Thank you for your comments and your time. The contact information provided in this comment will be retained in the Project file.

²<http://rivcoparcelreport.rivcoca.org/Report?apn=638233005&type=public&url=https://gis1.countyofriverside.us/Geocortex/Essentials/REST/TempFiles/Export.png?guid=82ee0c2b-18bb-4635-8ecc-83ebd68f3f7a&contentType=image/png>

MITIGATION MONITORING AND REPORTING PROGRAM

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Air Quality AIR-1 <u>Fugitive Dust Control</u>. The following measures shall be incorporated into project plans and specifications for implementation during construction:</p> <ul style="list-style-type: none"> • Apply soil stabilizers to inactive areas. • Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph. • Stabilize previously disturbed areas if subsequent construction is delayed. • Apply water to disturbed surfaces and haul roads 3 times/day. • Replace ground cover in disturbed areas quickly. • Reduce speeds on unpaved roads to less than 15 mph. • Trenches shall be left exposed for as short a time as possible. • Identify proper compaction for backfilled soils in construction specifications. <p>This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.</p>	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.</p>	<p>A copy of the construction contract including this air mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the air quality measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Air Quality AIR-2 <u>Exhaust Emissions Control</u>. The following measures shall be incorporated into Project plans and specifications for implementation:</p> <ul style="list-style-type: none"> • Utilize well-tuned off-road construction equipment. • Establish a preference for contractors using Tier 3 or better heavy equipment. • Enforce 5-minute idling limits for both on-road trucks and off-road equipment. 	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.</p>	<p>A copy of the construction contract including this air mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the air quality measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification
<p>Biological Resources</p> <p>BIO-1 Preconstruction presence/absence surveys for burrowing owl shall be conducted no less than 14 days prior to any onsite ground disturbing activity by a qualified biologist. The burrowing owl surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife in the “California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation.” In the event this species is not identified within the Project limits, no further mitigation is required, and a letter shall be prepared by the qualified biologist documenting the results of the survey. The letter shall be submitted to CDFW prior to commencement of Project activities. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.</p>	<p>This survey shall be completed 14-days prior to initiating site construction. A report of findings shall be provided to the City prior to construction. If occupied, the report shall include a summary of management actions taken to meet CDFW protocols.</p>	<p>A copy of the final Burrowing Owl report submitted to the District shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	MSWD
		Status / Date / Initials

Mitigation Measure	Implementation Schedule	Verification
<p>Biological Resources</p> <p>BIO-2 If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:</p> <p>Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.</p> <p>If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.</p> <p>If relocation of the owls is approved for the site by CDFW, CDFW shall require the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example</p>	<p>Actions pertaining to burrowing owl shall occur prior to construction where applicable after the preconstruction survey has been conducted. Otherwise actions pertaining to burrowing owl shall occur after fledging has occurred. This measure shall be included in the construction contract and implemented by the contractor during construction where applicable.</p>	<p>A copy of the construction contract including this biological resources mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the biological resource measure has been implemented as required in this measure. Field notes documenting verification and documenting the actions required to take place by this measure shall be retained in the project file.</p>

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification
<p>Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.</p> <p>The relocation plan must include all of the following and as indicated in Appendix E:</p> <ul style="list-style-type: none"> • The location of the nest and owls proposed for relocation. • The location of the proposed relocation site. • The number of owls involved and the time of year when the relocation is proposed to take place. • The name and credentials of the biologist who will be retained to supervise the relocation. • The proposed method of capture and transport for the owls to the new site. • A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control). <p>The applicant shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing Project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.</p> <p>Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.</p>		

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.			
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Biological Resources			
BIO-3 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).	Construction shall occur outside of the nesting season or a copy of the field survey documenting no nesting birds shall be completed prior to initiating construction within the nesting season.	District personnel shall document the dates of construction. If construction is proposed to occur within the nesting season, a copy of the field survey documenting the absence of nesting birds shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Cultural Resources</p> <p>CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.</p>	<p>Any response to exposed resources shall occur during construction. Any reports documenting management and findings for accidentally exposed resources shall be completed within one year of the discovery.</p>	<p>The District shall be notified within 24-hours of accidental exposure of any cultural resources. A copy of initial findings shall be provided to the District and retained in the project file. A copy of the final report shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Cultural Resources</p> <p>CUL-2 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.</p>	<p>This measure shall be implemented during construction if human remains are exposed during construction</p>	<p>The District shall retain all records of the discovery and management actions taken in regard to human remains in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Geology and Soils</p> <p>GEO-1 Based upon the geotechnical investigation (Appendix 4 of this document), all of the recommended seismic design measures identified in Appendix 4 (listed on pages 7-17) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including seismic related hazards on the proposed water storage reservoir.</p>	<p>The design measures shall be incorporated into final site and building design and implement during construction.</p>	<p>The final designs shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geotechnical design measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Geology and Soils</p> <p>GEO-2 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup such that erosion does not occur.</p>	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.</p>	<p>A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Geology and Soils</p> <p>GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the 100,000-gallon replacement reservoir with associated water improvements is being constructed.</p>	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.</p>	<p>A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification
<p>Geology and Soils GEO-4 Based upon the geotechnical investigation (Appendix 4 of this document), all of the recommended design measures identified in Appendix 4 (listed on pages 7-17) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site.</p>	<p>The design measures shall be incorporated into final site and building design and implement during construction.</p>	<p>The final designs shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geotechnical design measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	MSWD
		Status / Date / Initials

Mitigation Measure	Implementation Schedule	Verification
<p>Geology and Soils GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the City's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.</p>	<p>Any response to exposed resources shall occur during construction. Any reports documenting management and findings for accidentally exposed resources shall be completed within one year of the discovery.</p>	<p>The District shall be notified within 24-hours of accidental exposure of any paleontological resources. A copy of initial findings shall be provided to the District and retained in the project file. A copy of the final report shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	MSWD
		Status / Date / Initials

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure		Implementation Schedule		Verification
<p>Hazards and Hazardous Materials</p> <p>HAZ-1 Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of City Building & Safety Department, and Riverside County Site Cleanup Program. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that a site has been remediated to a threshold that poses no hazard to humans) of the contaminated area.</p>		<p>These measures shall be identified in the project construction contract as part of the and implemented during construction.</p>		<p>A copy of the construction contract including this hazards and hazardous materials measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the BMPs have been implemented as required in this measure. Field notes documenting verification shall be retained in the project file.</p>
		Source	Responsible Party	Status / Date / Initials
		Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Hydrology and Water Quality</p> <p>HYD-1 MSWD shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:</p> <ul style="list-style-type: none"> • The use of silt fences; • The use of temporary stormwater desilting or retention basins; • The use of water bars to reduce the velocity of stormwater runoff; • The use of wheel washers on construction equipment leaving the site; • The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads; • The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and • Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles. 	<p>These measures shall be identified in the project SWPPP and implemented during future operations.</p>	<p>A copy of the SWPPP and construction contract shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the SWPPP BMPs have been implemented as required in this measure. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Noise</p> <p>NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.</p>	<p>This measure shall be implemented during construction and included in the contract with the construction contractor.</p>	<p>District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-3 No construction activities shall occur during the hours of 5 PM through 7 AM, Monday through Saturday; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-4 Equipment not in use for five minutes shall be shut off.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification		
Noise NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.		
		Source	Responsible Party	Status / Date / Initials
		Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification		
Noise NOI-7 MSWD will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by MSWD.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.		
		Source	Responsible Party	Status / Date / Initials
		Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification		
Noise NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, as determined by MSWD.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.		
		Source	Responsible Party	Status / Date / Initials
		Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT VISTA RESERVOIR NO. 2 PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure		Implementation Schedule	Verification				
<p>Noise NOI-9</p> <p>MSWD shall require the construction contractor(s) to implement the following measures:</p> <ul style="list-style-type: none"> Ensure that the operation of construction equipment that generates high levels of vibration including, but not limited to, large bulldozers, loaded trucks, pile-drivers, vibratory compactors, and drilling rigs, is minimized to below 72 vibration decibels (VdB), within 45 feet of existing residential structures and 35 feet of institutional structures (e.g., schools) during construction. Use of small rubber-tired bulldozers shall be enforced within these areas during grading operations to reduce vibration effects. The construction contractor shall provide signs along the roadway identifying a phone number for adjacent property owners to contact with any complaint. During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests shall be conducted at the property line near the nearest occupied residences. If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold. These measures may include, but are not limited to the following: use different construction methods, slow down construction activity, or other mitigating measures to reduce vibration at the property from where the complaint was received. 		<p>This measure shall be implemented during construction and included in the contract with the construction contractor.</p>	<p>District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.</p>				
					Source	Responsible Party	Status / Date / Initials
					Initial Study	MSWD	

Mitigation Measure		Implementation Schedule	Verification				
<p>Utilities and Service Systems UTIL-1</p> <p>The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to MSWD for review and approval prior to the start of demolition/construction activities to accomplish this objective.</p>		<p>This measure shall be included in the construction contract and implemented during construction.</p>	<p>Verification of implementation shall be based on field inspections by District inspection personnel that verify the recycling plan is being complied with by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>				
					Source	Responsible Party	Status / Date / Initials
					Initial Study	MSWD	

**DRAFT INITIAL STUDY
(w/ APPENDICES)**

INITIAL STUDY

FOR THE

MISSION SPRINGS WATER DISTRICT

VISTA RESERVOIR PROJECT

Prepared for:

Mission Springs Water District
66575 Second Street
Desert Hot Springs, California 92240

Prepared by:

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LIST OF ABBREVIATIONS AND ACROYNMS

AB	Assembly Bill
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
BRA	Biological Resources Assessment
BUOW	Burrowing Owl
C&D	Construction and Demolition
CAAA	Clean Air Act Amendment
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCAR	California Climate Action Registry (now called Climate Action Reserve)
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act

CNEL	Community Noise Equivalent Level
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVPA	Coachella Valley Planning Area
CWA	Clean Water Act
dBA	A-weighted decibel
DTS	Department of Toxic Substances
DWR	Department of Water Resources
EI	Expansion Index
EO	Executive Orders
ESA	Endangered Species Act
FGC	Fish & Game Code
FTA	Federal Transit Association
GHG	Greenhouse Gas
HAS	Hydrologic Sub-Area
LST	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MSWD	Mission Springs Water District
NAAQS	National Ambient Air Quality Standards
NPDES	National Pollutant Discharge Elimination System
OS	Open Space
RCFD	Riverside County Fire Department
RCP	Reinforced Concrete Pipe
R-L	Residential Low
R-RD	Residential Rural Desert
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SRA	State Responsibility Area
SSAB	Salton Sea Air Basin
SWPPP	Storm Water Pollution Prevention Plan
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration-velocity decibel
WoUS	Waters of the United States
WQMP	Water Quality Management Plan

ENVIRONMENTAL CHECKLIST

INTRODUCTION

1. Project Title: Vista Reservoir No. 2 Project
2. Lead Agency Name: Mission Springs Water District
Address: 66575 Second Street, Desert Hot Springs, CA 92240
3. Contact Person: Danny Friend, Director of Engineering and Operations
Phone Number: (760) 329-6448
4. Project Location: The project is located along Valencia Drive in the City of Desert Hot Springs. The project is located within the USGS Topo 7.5-minute map for Seven Palms Valley, CA, and is located in Section 19, Township 2 South and Range 5 East. The approximate GPS coordinates of the project site are 33.983003°, -116.493301°. Refer to Figures 1 and 2 for the regional and site location maps.
5. Project Sponsor Name: Mission Springs Water District
Address: 66575 Second Street, Desert Hot Springs, CA 92240
6. General Plan Designation: Public/Institutional
7. Zoning: Public/Institutional
8. Project Description:

Introduction

Mission Springs Water District (MSWD or District) provides water and sewer services to the communities of Desert Hot Springs, West Garnet, North Palm Springs, and various portions of unincorporated Riverside County. MSWD, as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to develop a second reservoir at the existing Vista Reservoir site.

Project Description

The existing Vista Reservoir site is approximately 1.23 acres located in the northern portion of the District's service area; more specifically, at the northern end of Valencia Drive. The site is surrounded by mountain terrain and consists of mild to steep slopes and an earthen driveway up to the existing 300,000-gallon reservoir pad at 1,609 feet in elevation. The existing reservoir is connected to two different pressure zones via a 10-inch waterline and a hydropneumatic station with a 4-inch waterline.

The proposed Vista Reservoir No. 2 Project includes a new 300,000-gallon reservoir approximately 30 feet northwest of the existing reservoir, see Figure 3. Due to its close proximity to the existing reservoir, the existing hydropneumatic station and the electrical cabinet will require relocation. This includes a minimum of 15-foot horizontal clearance between the proposed reservoir and proposed retaining walls, slope, and proposed relocated facilities. Development of

the new reservoir at the Vista Reservoir site will require the construction of a retaining wall along the east side of the reservoir pad with heights ranging from 2-feet to 11-feet. The proposed retaining wall will include a concrete v-ditch approximately 1-foot to 2-feet below the top of wall to intercept and transport stormwater runoff from the adjacent hills. This concrete v-ditch will intercept flows from the existing southerly erosional feature and direct them through and out of the site with the northerly drainage course. Any flows that are collected along the proposed retaining wall go through a rip-rap energy dissipater, then storm drain pipes to Valencia Drive. The flows are released through an under-sidewalk drain which will reduce velocities and keep flows within the existing street as they are today. In order to mitigate the potential for runoff to the adjacent southerly property, a v-ditch will extend to the existing tank area to pick up additional runoff from the adjacent southeasterly hills and minimize stormwater runoff to adjacent properties. Note that the v-ditch would not result in capturing and concentrating flows, it would redirect onsite flows to enable flows to exit the site in a similar manner to that which occurs at present.

The new access road will maintain a maximum slope of 10% and includes additional retaining walls and concrete v-ditches to provide slope stability and protection from stormwater runoff. Additionally, the area between the access road and the proposed reservoir pad includes anticipated improvements such that this area would be covered with jute netting to reduce erosion of the existing and proposed 2:1 slopes. On-site stormwater flows will be directed onto Valencia Drive via an under sidewalk drain, enabling flows to exit the site in a similar manner to that which occurs at present. Additional stormwater management best management practices (BMPs) may be required, though these will be determined upon final design. The District will install a wrought iron fence and gate along Valencia Drive along the western property line to mitigate the amount of vehicle and civilian traffic entering and crossing the site. The remainder of the site will be protected by a chain link fence.

Ultimately the installation of the new 300,000-gallon reservoir at the Vista Reservoir site will require installation of the following: retaining walls and hillside slope stabilization, stormwater management BMPs, installation of a new access road, relocation of the existing hydropneumatic station and the electrical cabinet, grading, wrought iron and chain link fence, and a new 300,000-gallon welded steel water storage reservoir and related piping.

Clearing and Grubbing: The site will be cleared of any debris and vegetation in preparation for the project construction. During this phase a portion of the existing fence surrounding the existing 300,000-gallon tank will be removed as needed and a temporary security fence will be constructed around the larger site area. It is assumed that a maximum of 5 workers will be on the site during clearing and grubbing. Due to the compact nature of the site only small to medium sized tractors will be utilized during this phase.

Fencing: Two new fences will be installed. The first fence, a new wrought iron fence, will be constructed along the Valencia Drive right-of-way. The fencing will be approximately 170 feet in length and will include a 20 foot wide access gate at driveway. In addition, a new chain-line fence will enclose the remaining site, tying into the existing chain link fence and proposed wrought iron fence. The chain link fencing will be approximately 485 feet in length and will include a 6 foot wide access gate.

Retaining Walls and Earthwork: The existing tank pad will be expanded to accommodate the proposed 300,000-gallon tank. A new retaining wall will be constructed along the east side of the site to hold up the existing slopes and provide access around the proposed reservoir. The wall length will reach approximately 160 feet, with heights ranging from 2 feet to 11 feet. Two additional

retaining walls will be required to hold up slopes along the proposed drive approach, beginning at the site entrance on Valencia Road and continuing northeast to southwest up to the proposed tank pad. The additional wall lengths are approximately 85 feet and 110 feet, respectively, with heights ranging from 2 feet to 8 feet. The retaining walls will include drain provisions and include a concrete v-ditch along the perimeter to collect any sheet flow from the adjacent slopes and convey it safely through the site. As the walls are constructed, dirt and engineered fill material will be placed behind the walls in compacted lifts. It is assumed that a maximum of 7 workers will be on the site during the retaining walls and earthwork phase. This phase of construction will most likely utilize small to medium sized tractors, along with hand operated power equipment.

Storm Drain Culverts: The construction of culverts onsite will proceed upon completion of earthwork and retaining walls. Storm Drain Culverts will consist of 18-inch High Density Poly Ethylene (HDPE) and 2-foot-wide by 1-foot-deep reinforced concrete v-ditches. As described, approximately 245 feet of concrete v-ditch will be added along the top of the retaining walls to collect any sheet flow from the adjacent slopes. Additionally, 110 feet of concrete v-ditch and 170 feet of HDPE storm drain are needed to safely convey flows through the site. It is assumed that a maximum of 5 workers will be on the site during the construction of storm drain culverts. This phase of construction will most likely be utilizing small to medium tractors, along with hand operated power equipment.

Foundation Construction: The tank foundation construction will be constructed following the completion of the retaining wall and mass earthwork. The tank foundation around the perimeter will consist of an approximately 8-foot-wide by 6-foot-deep reinforced concrete foundation, known as a ring wall. In the center, the tank will rest on 3 layers of material. The top layer will typically consist of 3 inches of an oil sand mixture, followed by 12 inches of Class II base material, over 24 inches of over 95% compacted earthen materials. It is assumed that a maximum of 5 employees will be on the site during foundation construction. This phase of construction will most likely be utilizing small to medium sized tractors, concrete delivery trucks, concrete pumping equipment, along with hand operate power equipment.

Tank Construction: The proposed welded steel reservoir will be 34 feet in height and 40 feet in diameter. It will be constructed in a bottom up fashion. First will be the floor construction, followed by the exterior shell/walls, interior supports, interior piping, roof and appurtenances. Following construction, the tank will be sand blasted, coated, and lined to prevent corrosion. It is assumed that a maximum of 5 employees will be on the site during tank construction. This phase of construction will most likely be utilizing cranes, man lifts, welders, grinders, cutting equipment, sand blasting equipment and painting equipment.

Hydro Pneumatic Tank and Pumps: The existing on-site hydro pneumatic tank and pumps will require relocation to accommodate the proposed reservoir. The equipment will be relocated from the southeast side of the proposed reservoir to the northeastern side, including all associated piping and electrical. It is assumed that a maximum of 5 employees will be on site during this phase of work. This phase of construction will most likely be utilizing small to medium tractors, cranes, welding equipment, compaction equipment, and cutting equipment.

On-Site Piping: The on-site piping phase will involve constructing the reservoir inflow/outflow piping along with the drain/overflow piping. Additionally, a catch basin for the drain/overflow piping will be constructed. It is assumed that a maximum of 5 employees will be on the site during the on-site piping phase. This phase of construction will most likely be utilizing small to medium tractors, cranes, welding equipment, compaction equipment, and cutting equipment.

Finish Surfaces: The areas around the existing tank and the proposed tank will be finished with a 3/4-inch rock and weed barrier. Additionally, the proposed access road will be paved with asphalt. The rock area is approximately 6,700 square feet and the paved area is approximately 5,600 square feet. It is assumed that a maximum of 5 employees will be on the site during the completion of finish surfaces. This phase of construction will most likely be utilizing small to medium tractors, compaction equipment, and paving equipment.

Design and construction of the Project is anticipated to be completed in approximately 6 months. Construction is anticipated to start in the third quarter of 2021.

9. Surrounding land uses and setting: (Briefly describe the project's surroundings)

- North: Open Space (OS): north of the project is open space, leading to the foothills of the Little San Bernardino Mountains.
- South: Residential Low (R-L): south of the project are single family residences.
- East: Residential Rural Desert (R-RD), further east Open Space (OS): no development exists at present to the east of the project.
- West: Residential Low (R-L): west of the project are single family residences.

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

The site is currently owned by MSWD. MSWD will serve as the CEQA lead agency for this Project. The whole of the project exceeds the threshold for a General Construction National Pollutant Discharge Elimination System (NPDES) permit. This requires notification to the State Water Board and preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). When MSWD integrates the new reservoir into its system it is likely that a permit will be required from the State Division of Drinking Water. No other permits are known to be required. Because State responsible or trustee agencies have been identified for this project, MSWD will implement a 30-day review period for this Initial Study and proposed Mitigated Negative Declaration.

11. Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Only one tribe has requested consultation with the District under AB 52, the Agua Caliente Band of Cahuilla Indians. Consultation letters were sent to the Agua Caliente Band of Cahuilla Indians on October 19, 2020. No response was received within the 30-day consultation period, as such no further action is required. Consultation is deemed complete as of November 17, 2020.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

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.

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


DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	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.

Tom Dodson & Associates
 Prepared by Tom Dodson & Associates

April 2021
 Date


 Lead Agency (signature)

April 28, 2021
 Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "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 Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The dominant landscape feature of the project site are the Little San Bernardino Mountains that surround the project site to the north and east. Additionally, middle and background views within the City of Desert Hot Springs include the San Bernardino Mountains to the west, and the San Jacinto and Santa Rosa Mountains to the southwest and south, which also provide dramatic and valuable viewsheds. The proposed project site is located adjacent to the foothills of the Little San Bernardino Mountains and contains an existing 300,000 gallon reservoir.

Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by new development. The proposed project site currently contains an existing reservoir; construction of a second reservoir will not impact any scenic vistas or visual resources within the site itself. The site is located adjacent to the foothills of the Little San Bernardino Mountains, but the site itself doesn't contain any important scenic vistas which could be impacted by implementing the proposed new 300,000-gallon reservoir. A scenic vista or visual resource impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. The proposed new reservoir is planned to be located adjacent to the existing reservoir. The new 300,000-gallon reservoir will be 34 feet in height and 40 feet in diameter. Views to the north and east, as stated above, include the Little San Bernardino Mountains, which are visible throughout the City of Desert Hot Springs, the City's Sphere of Influence, and to nearby residences to the south at a lower elevation than the project site. However, the location of the reservoir is set back into the hills, which prevents most of the nearby residents from visual access to the reservoir. However, three residences are able to view the existing reservoir (which is partially shielded by trees), though the views to the mountains to the north/northwest are not obscured by the existing reservoir and would not be obscured by the new reservoir because the reservoir site is set back at an angle at the foothills of the Little San Bernardino Mountains. Therefore, the development of a new reservoir at this site will not substantially impact scenic vistas to residents within the project area. Furthermore, construction of a second reservoir will introduce a similar structure at this site and therefore, would be similar to that which exists in this vista of the Little San Bernardino Mountains foothills at present. Therefore, implementation of the proposed new reservoir is not expected to cause any substantial effects on any important scenic vistas. Impacts are considered a less than significant adverse aesthetic impact. No mitigation is required.

- b. *Less Than Significant Impact* – The nearest officially designated State scenic highway is State Highway 62 located approximately five miles west of the project site. Highway 62 is the main corridor gateway to Joshua Tree National Park and the main arterial roadway for the communities of Yucca Valley, Joshua Tree and Twenty-Nine Palms. The project site would not be visible from Highway 62 and no impacts to the State Scenic Highway are anticipated. The project site is adjacent to the Little San Bernardino Mountain foothills, and contains an existing 300,000-gallon reservoir. No rock outcroppings or historic buildings exist on site and the trees that are located on site that are intended to provide a screen between the existing reservoir and nearby residences will remain in place under the proposed project. Based on the lack of any intrinsic onsite scenic resources, the proposed project will not cause substantial project-specific damage to any such resources. No mitigation is required.

- c. *Less Than Significant Impact* – The project site is located in a relatively urbanized area surrounded by residential homes to the south and west and the Little San Bernardino Mountains to the north and east. The project site currently contains a 300,000-gallon reservoir, while the proposed project will install a second 300,000-gallon reservoir adjacent to the existing reservoir. The site consists of dirt and hillside vegetation. The site is currently designated and zoned for Public/Institutional use and because it contains existing water facilities, the construction of the new reservoir would be visually consistent with the existing viewscape at the site. The existing reservoir is set back into the hills at an angle that prevents many residents from viewing the site due to the angle of the adjacent hillside. Thus, while a small number of residents may be able to see the reservoir from their properties, the addition of the new reservoir would not be visible to a majority of nearby residents. Furthermore, the project is located within a site designated for and classified as Public/Institutional under the City’s General Plan and Zoning Code (§17.24.030), respectively, which allows for a maximum height limit of 30 feet. The proposed reservoir will be 34 feet in height and as such will be over this height limit; however, Government Code Section 53091 (e) states that “Zoning ordinances of a county or city shall not apply to the location of facilities for the production, generation, storage, treatment, or transmission of water...”, and as the proposed project would allow for the storage of water, the height limit in the zoning code does not apply to this project as the proposed reservoir installation project is considered land use independent, and therefore, the proposed development of a second reservoir and associated site improvements would not have a significant potential to substantially degrade the existing visual character or to conflict with applicable zoning or other regulations governing scenic quality. Impacts under this issue are considered less than significant, and no mitigation is required.

- d. *Less Than Significant Impact* – The existing reservoir utilizes lighting on an as-need basis. It is assumed that the new reservoir would not require additional lighting in order to operate; however, the existing lighting will be relocated to the northeast area of the site near the relocated hydropneumatics station and electrical panel. Should MSWD elect to include additional lighting, it is anticipated that new lighting would be limited to a few light posts at, for example, the top of the driveway and between the two tanks. Existing sources of light in the project area include the residences that surround the project site to the west and south. The construction activities are limited to daylight hours unless an emergency occurs, and the amount of security lighting needed during construction will be limited. Therefore, given that the proposed project would not require additional lighting during operation, the proposed project is not anticipated to introduce a new source of light and glare into the project area over previous uses. No impacts are anticipated to occur under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<p>II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – The proposed reservoir is located adjacent to the foothills of the Little San Bernardino Mountains. The area to the south and west of the project site is urbanized, and neither the project site nor the adjacent and surrounding properties are designated for agricultural use; no agricultural activities exist in the project area; and there is no potential for impact to any agricultural uses or values as a result of project implementation. According to the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, no prime farmland, unique farmland, or farmland of statewide importance exists within the vicinity of the proposed project (Figure II-1). No adverse impact to any agricultural resources would occur from implementing the proposed Project. No mitigation is required.
- b. *No Impact* – The project site is not now nor has it been included in a Williamson Act contract or an Agricultural Preserve. Based on these facts, the proposed project will not cause a significant direct

impact or conflict with the Williamson Act or an existing agricultural use. The site is not currently being farmed and the land use designations (general plan and zoning) support Public/Institutional uses and is surrounded by residential and open space uses, which are not agricultural in nature. Furthermore, the City of Desert Hot Springs does not have any current land use designations or zoning classifications for agricultural use. According to the Riverside County Williamson Act Lands Map from the Williamson Act Program (2007), there are no sites within the project footprint under a Williamson Act Land Conservation Contract. Therefore, no potential for indirect effects on agricultural resources or values would occur due to implementation of the Vista Reservoir No. 2 Project.

- c. *No Impact* – There are no existing zoning ordinances that pertain to forest land, timberland, or timberland zoned Timberland Production. The site does not currently contain forestry resources, and the land use designations (general plan and zoning) support Public/Institutional uses. The site is surrounded by residential and open space uses, which are not related to forestry uses. Additionally, according to the City of Desert Hot Springs General Plan, there are no land use designations that pertain to forest land, timberland, or timberland zoned Timberland Production. Therefore, the no potential for indirect effects to existing zoning for forest land, timberland, or timberland zoned Timberland Production would occur due to implementation of the Vista Reservoir No. 2 Project.
- d. *No Impact* – As described in the preceding evaluation, there are no forest lands within the project area, which is because the project area is located in a desert and is urbanized. No potential for loss of forest land would occur if the project is implemented. No mitigation is required.
- e. *No Impact* – Because the project site and surrounding area do not support either agricultural or forestry uses and, furthermore, because the project site and environs are not designated for such uses, implementation of the proposed project would not cause or result in the conversion of farmland or forest land to alternative use. No adverse impact would occur. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the following technical study: *Air Quality and GHG Impact Analyses, Mission Springs Water District, Vista Reservoir No. 2 Project, Desert Hot Springs, California* dated September 22, 2020 prepared by Giroux & Associates. This technical study is provided as Appendix 1 to this document.

Background

Climate

The proposed project site is in the Coachella Valley Planning Area (CVPA) of the Salton Sea Air Basin (SSAB). The SSAB was part of the Southeast Desert Air Basin (SEDAB) until May, 1996 when the SSAB was created. The project site is in one of the hottest and driest parts of California. The climate is characterized by hot, dry summers and relatively mild winters. Rainfall is scant in all seasons, so differences between the seasons are characterized principally by differences in temperature. Average annual precipitation in the air basin ranges from 2 to 6 inches per year.

Seasonal temperature differences in the basin are large, confirming the absence of marine influences due to the blocking action of the mountains to the west. Average monthly maximum temperatures in the project vicinity range from 108°F in July to 57°F in January. The average monthly minima range from about 40°F in January to about 80°F in July.

During much of the year, California is covered by a moderately intense high-pressure system. In winter, the Pacific High retreats to the south, so that frontal systems from the North Pacific can move onto the California coast. On average, 20 to 30 frontal systems pass through California each winter. The first front usually arrives around the middle of October, and the average period of frontal activity is five to six months. Most of these systems are relatively weak by the time they reach the SSAB, however, and they become more diffuse as they move southeastward.

Air Quality Standards

Existing air quality is measured at established South Coast Air Quality Management District (SCAQMD) air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table III-1. Because the State of

California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

**Table III-1
 AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	–	–	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15.0 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Flourescence; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Lead ^{8,12,13}	30-Day Average	1.5 µg/m ³	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Footnotes

- 1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- 2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above 150 µg/m³, is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- 9 On December 14, 2012, the national PM2.5 primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 11 On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

**Table III-2
 HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS**

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	<ul style="list-style-type: none"> Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. Natural events, such as decomposition of organic matter. 	<ul style="list-style-type: none"> Reduced tolerance for exercise. Impairment of mental function. Impairment of fetal development. Death at high levels of exposure. Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> Motor vehicle exhaust. High temperature stationary combustion. Atmospheric reactions. 	<ul style="list-style-type: none"> Aggravation of respiratory illness. Reduced visibility. Reduced plant growth. Formation of acid rain.
Ozone (O ₃)	<ul style="list-style-type: none"> Atmospheric reaction of organic gases with nitrogen oxides in sunlight. 	<ul style="list-style-type: none"> Aggravation of respiratory and cardiovascular diseases. Irritation of eyes. Impairment of cardiopulmonary function. Plant leaf injury.
Lead (Pb)	<ul style="list-style-type: none"> Contaminated soil. 	<ul style="list-style-type: none"> Impairment of blood function and nerve construction. Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	<ul style="list-style-type: none"> Stationary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions. 	<ul style="list-style-type: none"> Reduced lung function. Aggravation of the effects of gaseous pollutants. Aggravation of respiratory and cardio respiratory diseases. Increased cough and chest discomfort. Soiling. Reduced visibility.
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> Fuel combustion in motor vehicles, equipment, and industrial sources. Residential and agricultural burning. Industrial processes. Also, formed from photochemical reactions of other pollutants, including NO_x, sulfur oxides, and organics. 	<ul style="list-style-type: none"> Increases respiratory disease. Lung damage. Cancer and premature death. Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> Combustion of sulfur-containing fossil fuels. Smelting of sulfur-bearing metal ores. Industrial processes. 	<ul style="list-style-type: none"> Aggravation of respiratory diseases (asthma, emphysema). Reduced lung function. Irritation of eyes. Reduced visibility. Plant injury. Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Baseline Air Quality

In the CVPA portion of the SSAB, air quality planning, enforcement and monitoring responsibilities are carried out by the SCAQMD. Existing and probable future levels of air quality around the project area can be best inferred from ambient air quality measurements conducted by the SCAQMD at the Indio and Palm Springs air quality monitoring stations. In Indio, ozone and particulate 10 microns or less in diameter (respirable particulates called PM-10) are monitored. These two pollutants are the main air pollution problems in the CVPA portion of the SSAB. Vehicular pollution levels such as carbon monoxide (CO) and nitrogen dioxide (NO₂) are monitored at Palm Springs. Levels of CO and NO₂ at the project site are likely lower than those monitored in Palm Springs. However, because CO and NO₂ levels in Palm Springs are well within acceptable limits, their use to characterize the project site introduces no complications. The last

four years of published data from Indio and Palm Springs stations are summarized in Table III-3. The following conclusions can be drawn from these data:

- Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated less than one percent of all days in the last four years near Indio. The 8-hour state ozone standard has been exceeded an average of 11 percent of all days per year in the same time. The Federal eight-hour ozone standard is violated on around eight percent of all days per year. Ozone levels are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.
- Carbon monoxide (CO) measurements near the project site have declined throughout the last decade, and 8-hour CO levels were at their lowest in 2017. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum CO levels at the closest air monitoring station are less than 25 percent of their most stringent standards because of continued vehicular improvements.
- PM-10 levels as measured at Indio, have exceeded the state 24-hour standard on 12 percent of all measurement days in the last four years, but the national 24-hour particulate standard has not been exceeded during the same period. The state standard is considerably more restrictive.
- A fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There have no violations of the 24-hour federal PM-2.5 standard in recent years.

**Table III-3
AIR QUALITY MONITORING SUMMARY
(Days Standards were Exceeded and Maximum Observed Concentrations 2015-2018)**

Pollutant/Standard	2015	2016	2017	2018
Ozone ^a				
1-Hour > 0.09 ppm (S)	2	8	4	4
8-Hour > 0.07 ppm (S)	27	44	49	43
8- Hour > 0.075 ppm (F)	12	27	28	43
Max. 1-Hour Conc. (ppm)	0.099	0.107	0.106	0.103
Max. 8-Hour Conc. (ppm)	0.089	0.093	0.091	0.087
Carbon Monoxide ^b				
1-hour > 20. ppm (S)	0	0	0	0
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.5	0.5	1.1	0.7
Nitrogen Dioxide ^b				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max 1-hour Conc. (ppm)	0.04	0.04	0.04	0.04
Respirable Particulates (PM-10) ^a				
24-hour > 50 µg/m ³ (S)	56/313	43/363	43/353	27/361
24-hour > 150 µg/m ³ (F)	0/313	0/363	0/363	0/361
Max. 24-Hr. Conc. (µg/m ³)	137.	128.	146.	41.
Ultra-Fine Particulates (PM-2.5) ^a				
24-Hour > 35 µg/m ³ (F)	0/115	0/110	0/122	0/118
Max. 24-Hr. Conc. (µg/m ³)	25.8	18.8	28.7	15.0

(S) = state standard, (F) = federal standard
^aData from Indio monitoring station; ^bData from Palm Springs air monitoring station.
 Source: SCAQMD Air Monitoring Summaries.

Air Quality Planning

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, PM2.5, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). The most current regional attainment emissions forecast for ozone precursors (ROG and NOx) and for carbon monoxide (CO) and for particulate matter are shown in Table III-4. Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in August 2003. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated. With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. The attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

**Table III-4
 SOUTH COAST AIR BASIN EMISSIONS FORECASTS (Emissions in tons/day)**

Pollutant	2015 ^a	2020 ^b	2025 ^b	2030 ^b
NOx	357	289	266	257
VOC	400	393	393	391
PM-10	161	165	170	172
PM-2.5	67	68	70	71

^a2015 Base Year.; ^bWith current emissions reduction programs and adopted growth forecasts.
 Source: California Air Resources Board, 2013 Almanac of Air Quality

AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board

in March, 2017, and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NO_x, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 µg/m ³)	2025
8-hour ozone (75 ppb)	2024 (old standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)
24-hour PM-2.5 (35 µg/m ³)	2019

The key challenge is that NO_x emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NO_x control measures are adopted and implemented, ozone attainment goals may not be met.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing reservoir projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

Significance Thresholds Used in This Document

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects in the Coachella Valley portion of the SCAQMD with daily emissions that exceed any of the following emission thresholds are to be considered significant under CEQA guidelines.

**Table III-5
 DAILY EMISSIONS THRESHOLDS**

Pollutant	Construction ¹	Operations ²
ROG	75	75
NOx	100	100
CO	550	550
PM-10	150	150
PM-2.5	55	55
Sox	150	150
Lead	3	3

¹ Construction thresholds apply to both the SCAB and the Coachella Valley (Salton Sea and Mojave Desert Air Basins).

² For Coachella Valley the mass daily emissions thresholds for operation are the same as the construction daily emissions thresholds.

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Sensitive Uses

There are single family residential uses to the south and southwest of the proposed reservoir site. These homes are accessed via Puesta Del Sol and Valencia Drive. The closest sensitive use is approximately 175 feet to the south and 350 feet to the southwest.

Impact Analysis

- a. **Less Than Significant Impact** – Projects such as the proposed development of a new 300,000 gallon water storage reservoir do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. This makes sense since, once installed, the reservoirs do not generate new emissions. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use are the primary yardsticks by which impact significance of planned growth is determined. Based on the analysis of the City’s General Plan Land Use section, the proposed project is consistent with the adopted City’s General Plan. Thus, the proposed project is consistent with regional planning forecasts maintained by the Southern California Association of Governments (SCAG) regional plans. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less than significant only because of consistency with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.

- b. *Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions include fugitive dust from construction activities (i.e., site prep, demolition, grading, and exhaust emission) at the project site. Long-term emissions generated by future operation of the proposed reservoir are negligible as additional energy is anticipated to be required.

Construction Emissions

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The proposed project includes a new 300,000-gallon reservoir approximately 30' northwest of the existing reservoir. Construction is anticipated to require 6 months and will start in the third quarter of 2021. Estimated construction emissions were modeled using CalEEMod2016.3.2 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled using default construction equipment and schedule for a project of this size using input from the project engineer as shown in Table III-6.

**Table III-6
 CONSTRUCTION ACTIVITY EQUIPMENT FLEET**

Phase Name and Duration	Equipment
Clear and Grub (2 days)	2 Bobcats
Earthworks (10 days)	2 Bobcats
	2 Loader/Backhoes
Storm Drain and Culverts (10 days)	2 Bobcats
	1 Loader/Backhoe
Foundation (10 days)	1 Pump
	1 Mixer
	2 Bobcats
	1 Loader/Backhoe
Tank Construction (3 months)	1 Crane
	1 Aerial Lift
	1 Forklift
	1 Generator Set
	2 Air Compressors
	1 Loader/Backhoe
Equipment Install (1 month)	1 Crane
	1 Loader/Backhoe
	1 Generator Set
	1 Forklift
	3 Welders
Finish Work (10 days)	1 Paver
	1 Roller
	1 Compactor

*bobcats modeled as skid steer loaders

Utilizing this indicated equipment fleet and durations shown in Table III-6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table III-7.

**Table III-7
 CONSTRUCTION ACTIVITY EMISSIONS
 MAXIMUM DAILY EMISSIONS (pounds/day)**

Maximal Construction Emissions	ROG	NOx	CO	SO ₂	PM-10	PM-2.5
2021	1.9	13.8	13.3	0.0	6.0	3.1
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds without the need for added mitigation. However, though construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. As such, the following mitigation measure shall be implemented:

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- **Apply soil stabilizers to inactive areas.**
- **Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.**
- **Stabilize previously disturbed areas if subsequent construction is delayed.**
- **Apply water to disturbed surfaces and haul roads 3 times/day.**
- **Replace ground cover in disturbed areas quickly.**
- **Reduce speeds on unpaved roads to less than 15 mph.**
- **Trenches shall be left exposed for as short a time as possible.**
- **Identify proper compaction for backfilled soils in construction specifications.**

This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

AIR-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- **Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.**
- **Contactors shall utilize Tier 4 or better heavy equipment.**
- **Enforce 5-minute idling limits for both on-road trucks and off-road equipment.**

With the above mitigation measures, any impacts related to construction emissions are considered less than significant. No further mitigation is required.

Operational Emissions

The project will not require additional operational energy. The proposed tank operates by gravity and is fed by an existing off-site booster station. The existing booster will not be running more frequently to fill the new reservoir (only once for the initial filling). The second tank is for back up and is used in

place of the existing tank, for a net zero energy increase. The existing hydropneumatic station is being relocated not expanded or up-sized.

Conclusion

With the incorporation of mitigation measures **AIR-1** and **AIR-2**, the development of the Vista Reservoir No. 2 Project would have a less than significant potential to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- c. *Less Than Significant Impact* – The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board’s Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD’s Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project, the closest receptor is 175 feet from the site and therefore the 50-meter distance was used.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites for varying distances. For this site (1.2 acres), the most stringent thresholds for a one-acre site were utilized.

The following thresholds and emissions in Table III-8 are therefore determined (pounds per day):

**Table III-8
 LST AND PROJECT EMISSIONS (pounds/day)**

LST Coachella Valley	CO	NOx	PM-10	PM-2.5
LST Threshold	1,387	166	13	5
Max On-Site Emissions	13	14	6	3
Exceeds Threshold?	No	No	No	No

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities.

As seen in Table III-8, LST impacts are less than significant.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of

construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure. Therefore, the proposed project would have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

- d. *Less Than Significant Impact* – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Project operations (pumping and storage) are an essentially closed system with negligible odor potential. Odors will be briefly detectable during application of the interior epoxy coating and outdoor paint application on the reservoir shell during construction. Good painting practice (low wind speeds and high efficiency sprayers) will minimize odor or overspray and paint transport. Impacts under this issue are considered less than significant. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information is provided based on a Biological Resources Assessment, Jurisdictional Delineation, and Land Use Consistency of the project site. The assessment was conducted by Jacobs Engineering Group, Inc. dated January 2021 and is titled “Biological Resources Assessment, Jurisdictional Delineation and Land Use Consistency Analysis for the Mission Springs Water District’s Vista Reservoir Expansion.” The following information is abstracted from the Biological Resources Assessment (BRA) provided as Appendix 2.

General Site Conditions

The project site is within the City of Desert Hot Springs and adjacent unincorporated areas of Riverside County. The Desert Hot Springs area is situated in the northwestern portion of the Coachella Valley and is bordered on the north and northeast by the Little San Bernardino Mountains, on the east/southeast by the Seven Palms Valley and Edom Hills and on the west by the San Bernardino Mountain foothills.

Hydrologically, the project area is located within the Mission Creek Hydrologic Sub-Area (HSA 719.42) which comprises a 73,873-acre drainage area within the larger Whitewater River Watershed (HUC 18100201). The Whitewater River is the major hydrogeomorphic feature within the Whitewater Watershed.

The primary soil types within the project area are Ironlung-Rock outcrop complex 30-75 percent slopes, and Chuckawalla very gravelly sandy clay loam 5-15 percent slopes. These soil types consist of fine to

gravelly loam that are comprised of alluvium derived from granitoid parent material as well as granite outcrops. Both soil types are excessively drained soils with very low to negligible runoff classes.

The general project vicinity consists of residential development and disturbed undeveloped land, and existing paved and unpaved roads.

Conclusion

Sensitive Biological Resources

A BRA and focused protocol-level desert tortoise and burrowing owl (BUOW) surveys were conducted by Lisa Patterson of Jacobs Engineering on November 2, 2020, to identify potential suitable habitat for special status species that have been documented within the project vicinity. Due to the environmental conditions within the Project area and surrounding land uses, the Project site is not likely to support any of the state- or federally-listed species that have been documented in the Project vicinity.

The project is not located within any United States Fish and Wildlife Service (USFWS) designated Critical Habitat for threatened or endangered species and will not impact any Critical Habitat, or otherwise sensitive habitats.

Coachella Valley milk-vetch

The proposed 1.23-acre reservoir site does not contain suitable habitat to support the federally endangered Coachella Valley milk-vetch. Further, the sandy soils within the project area are stabilized due to a moderately-dense vegetation cover, including several non-native, invasive species and Coachella Valley milk-vetch typically occurs on loose aeolian or alluvial sands located on dunes or flats, and along disturbed margins of sandy washes. Furthermore, the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) has modeled suitable Coachella Valley milk-vetch habitat within the Plan area and the project site is completely outside of any areas of modeled Coachella Valley milk-vetch habitat. Therefore, it is unlikely this species occurs within the project area in any significant numbers and any potential project-related impacts would be considered less than significant.

Additionally, the project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch and this species is one of the CVMSHCP Covered Species. The CVMSHCP provides “take” authorization for Covered Species during otherwise lawful activities, by providing for the conservation of the Covered Species. The District is a signatory to the CVMSHCP. Since the Coachella Valley milk-vetch is a Covered Species under the CVMSHCP and the project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch, “take” authorization is provided for any potential project-related impacts to this species.

Desert tortoise

The habitat within and adjacent the proposed 1.23-acre reservoir site consists of disturbed Sonoran mixed woody scrub habitat that is marginally-suitable for desert tortoise and this species has not been documented in the project vicinity. Additionally, the result of focused protocol-level desert tortoise surveys conducted in 2020, within the project impact area and surrounding buffer area, was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including other desert tortoise burrows or scat were observed. Therefore, desert tortoises are considered absent from the project area at the time of survey and the project is not likely to impact this species.

Burrowing owl

There is suitable BUOW habitat within and adjacent the proposed 1.23-acre reservoir site. The result of focused non-breeding season BUOW surveys conducted in 2020, was that no BUOW individuals or sign were observed within the survey area. Therefore, BUOW are considered absent from the Project area at the time of survey and the Project is not likely to impact this species. However, given that there is suitable BUOW habitat within the Project area and this species has been documented in the near Project vicinity, it is recommended that:

- A **30-day** preconstruction **BUOW survey** be conducted by a qualified biologist prior to commencement of Project activities, to avoid any potential Project-related impacts to BUOW that may move onto the site in the future.

According to protocol and standard practices, the results of the habitat assessment surveys will remain valid for the period of one year. After which time, if the site has not been disturbed in the interim, another survey may be required to determine the persisting absence of desert tortoise, BUOW and other sensitive flora and fauna on-site. Regardless of survey results and conclusions given herein, desert tortoise and BUOW are protected by applicable state and/or federal laws, including but not exclusive to the CESA and Federal ESA. As such, if a desert tortoise or BUOW are found on-site during work activities, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions. Additionally, it should be noted that desert tortoise may be handled only by a qualified biologist who has been given authorization by the appropriate agencies (i.e. USFWS and CDFW).

Nesting Birds

The project site and surrounding area consists of Sonoran mixed woody scrub habitat that is suitable to support nesting birds. Most birds are protected by the Migratory Bird Treaty Act (MBTA). In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, mitigation is recommended.

Jurisdictional Waters

No intermittent or ephemeral dry washes that would meet the definitions of State and federal jurisdictional waters as defined by Section 1600 of the State of California Fish and Game Code (FGC) or “Waters of the United States” (WoUS) as defined by Section 404 of the Clean Water Act (CWA) occur on the reservoir site. Therefore, no regulatory permits from these agencies will be required for this project.

Land Use Designations

The project is within the CVMSHCP boundary. The proposed 1.23-acre reservoir site is entirely outside any Conservation Areas and will not impact any Biological Corridors and Linkages or Essential Ecological Processes. Finally, the project is not adjacent to a Conservation Area. Therefore, no conservation or avoidance measures are expected, and the project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.

Impact Analysis

- Less Than Significant With Mitigation Incorporated* – Implementation of the proposed project may have a potential for an adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). The project area lies within the range of several sensitive species including several that have been documented in the project vicinity (approximately 3 miles), namely: Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*), desert tortoise (*Gopherus agassizii*), Coachella Valley fringe-toed lizard (*Uma inornata*), Least Bell's vireo (*Vireo bellii pusillus*), and Southwestern willow flycatcher (*Empidonax traillii extimus*). The BRA determined that there is no suitable habitat to support the federally endangered Coachella Valley milk-vetch. Additionally, the result of focused protocol-level desert tortoise surveys conducted in 2020 indicated that no evidence of desert tortoise presence was found in the survey area. Therefore, desert tortoises are considered absent from the project area at the time of survey and the project is not anticipated to impact this species. The BRA determined that there is suitable BUOW habitat within and adjacent the proposed 1.23-acre reservoir site. Given that there is suitable BUOW habitat within the project area and this species has been documented in the near project vicinity, the following mitigation measure shall be implemented:

BIO-1 *Preconstruction presence/absence surveys for burrowing owl shall be conducted no less than 14 days prior to any onsite ground disturbing activity by a qualified biologist. The burrowing owl surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife in the "California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation." In the event this species is not identified within the Project limits, no further mitigation is required, and a letter shall be prepared by the qualified biologist documenting the results of the survey. The letter shall be submitted to CDFW prior to commencement of Project activities. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.*

BIO-2 *If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:*

Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.

If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.

If relocation of the owls is approved for the site by CDFW, CDFW shall require the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.

The relocation plan must include all of the following and as indicated in Appendix E:

- The location of the nest and owls proposed for relocation.*
- The location of the proposed relocation site.*
- The number of owls involved and the time of year when the relocation is proposed to take place.*
- The name and credentials of the biologist who will be retained to supervise the relocation.*
- The proposed method of capture and transport for the owls to the new site.*
- A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).*

The applicant shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing Project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.

Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and

burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.

A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

No other species have been identified as having a potential to exist within or be impacted by the proposed project. With the implementation of mitigation measures (MMs) **BIO-1** and **BIO-2** above, the proposed project would 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.

- b. ***Less Than Significant Impact*** – Implementation of the proposed project has a potential to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Habitat that exists within and adjacent to the 1.23-acre reservoir site consists primarily unvegetated disturbed lands. The vegetated areas that do exist on slopes and the margins of the site are characterized by Sonoran mixed woody scrub habitat. No intermittent or ephemeral dry washes that would meet the definitions of State and federal jurisdictional waters as defined by Section 1600 of the State of California Fish and Game Code (FGC) or “Waters of the United States” (WoUS) as defined by Section 404 of the Clean Water Act (CWA) occur on the reservoir site. Therefore, no regulatory permits from these agencies will be required for this project. Furthermore, the BRA concluded that project is not located within any USFWS designated Critical Habitat for threatened or endangered species and will not impact any Critical Habitat, or otherwise sensitive habitats. Based on the field survey conducted by Jacobs and the information contained in Appendix 2, no significant impacts to riparian habitat or other sensitive communities are anticipated to occur as a result of implementation of the proposed project.
- c. ***No Impact*** – According to the data gathered by Jacobs in Appendix 2, no federally protected wetlands occur within the project footprint. Therefore, implementation of the proposed project will have no potential to impact state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No mitigation is required.
- d. ***Less Than Significant With Mitigation Incorporated*** – Based on the field survey of the project site, the project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites. Once constructed, much of the project area will be enhanced, but will remain similar to that which exists at present. However, the State does protect all migratory and nesting native birds. Avian species observed in the Project area include common raven (*Corvus corax*), house finch (*Haemorrhous mexicanus*), Say’s phoebe (*Sayornis saya*), bushtit (*Psaltriparus minimus*) and mourning dove (*Zenaida macroura*). Further, the project site and surrounding area consists of Sonoran mixed woody scrub habitat that is suitable to support nesting birds. Thus, the project area may include locations that function as nesting locations for native birds. To avoid impacting nesting birds as required by the MBTA and California FGC, the following mitigation measure shall be implemented:

BIO-3 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

Thus, with implementation of the above measure, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact.

- e. *Less Than Significant Impact* – Development of the proposed project would have a less than significant potential to conflict with any local policies or ordinances protecting biological resources. Impacts to biological resources have been addressed above under issues IV(a-d). Past site disturbance on the existing reservoir site has eliminated any trees or other biological resources that might be protected. Therefore, the potential for the project to conflict with local policies or ordinances pertaining to biological resources would be considered less than significant.
- f. *Less Than Significant Impact* – Please refer to the discussion under Conclusion, above. The BRA provided as Appendix 2 concluded that the project, though located within the boundaries of the CVMSHCP, the proposed Vista Reservoir site is entirely outside any Conservation Areas and will not impact any Biological Corridors and Linkages or Essential Ecological Processes. Finally, the project is not adjacent to a Conservation Area. Therefore, no conservation or avoidance measures are expected, and the project as described would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP. Therefore, the project does not have a significant potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect entitled “Historical/Archaeological Resources Survey Report: Mission Springs Water District Vista Reservoir No. 2 Project, Assessor’s Parcel No. 638-233-005, City of Desert Hot Springs, Riverside County, California” prepared by CRM TECH dated February 9, 2021 (Appendix 3). The following information is abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area.

Background

The purpose of the Cultural Resources study is to provide the District with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any “historical resources” or “tribal cultural resources,” as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey of the entire project area. The research results indicate that the existing steel reservoir in the project area dates to 1966 and therefore meets the age threshold to be considered historical in origin (i.e., more than 50 years of age). The reservoir was recorded into the California Historical Resources Inventory as a site and is designated temporarily as CRM TECH 3655-1H, pending the assignment of an official site number. As a late-historic-period infrastructure component of standard design and construction, the reservoir is utilitarian in character and demonstrates no notable historical, architectural, archaeological, engineering, artistic, or aesthetic merits. As such, it does not appear to meet any of the criteria for listing in the California Register of Historical Resources and does not qualify as a “historical resource” under CEQA provisions.

No other potential “historical resources” were encountered within or adjacent to the project area. Based on these findings, a finding of No Impact has been made regarding cultural resources. No further cultural resources investigation is recommended for the 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 in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

Impact Analysis

a&b. *Less Than Significant With Mitigation Incorporated* – CEQA establishes 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.”

Per the above discussion and definition, no archaeological sites or isolates were recorded within the project boundaries; thus, none of them requires further consideration during this study. In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the project:

- No historical resources within or adjacent to the project area have any potential to be disturbed as they are not within the proposed area in which the facilities will be constructed and developed, and thus, the project as it is currently proposed will not cause a substantial adverse change to any known historical resources.
- No further cultural resources investigation is necessary for the proposed project unless construction plans undergo such changes as to include areas not covered by this study.

However, if buried cultural materials are discovered during any earth-moving operations associated with the project, the following mitigation measure shall be implemented:

CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

With the above mitigation measure, the potential for impacts to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

- c. *Less Than Significant With Mitigation Incorporated* – As noted in the discussion above, no available information suggests that human remains may occur within the Area of Potential Effect (APE) and the potential for such an occurrence is considered very low. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human remains are encountered. Compliance with these laws is considered adequate mitigation for potential impacts, the following mitigation measure shall be implemented in relation to discovery and treatment of human remains:

CUL-2 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

With the incorporation of the above mitigation measure, potential for impact to discovery and treatment of human remains will be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. ENERGY: Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – During construction, the proposed project will utilize construction equipment that is CARB approved, minimizing emissions generated and electricity required to the extent feasible (as enforced through MM **AQ-2**, outlined under Section III, Air Quality, above). As stated in Section III, Air Quality, the construction of the proposed Vista Reservoir No. 2 Project would require mitigation measures to minimize emissions impacts from construction equipment use. This mitigation measure also applies to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. This measure would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency.

Southern California Edison Company (SCE) is the primary provider of electricity in the project area. According to the City of Desert Hot Springs General Plan Environmental Impact Report (General Plan EIR), in the 2018 fiscal year, SCE sold approximately 87,143 million kilowatt hours (kWh) of electricity; approximately 46% of the electricity that SCE delivered to customers came from carbon-free resources, including solar energy (approximately 13%), wind energy (approximately 13%), and geothermal energy (approximately 8%). The City’s General Plan EIR provides the following analysis related to new development under Chapter 4.6, Energy:

“New development and land use turn over would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated electricity consumption in new and/or retrofitted structures. Additional electricity reductions would be achieved through the implementation of Mitigation Measure GHG-1C, which requires the adoption of a Zero Net Energy (ZNE) ordinance. The adoption and implementation of a ZNE ordinance would require increased building efficiency and the installation of renewable energy infrastructure (e.g., photovoltaic (PV) systems and/or windmills) to offset the building/structure’s energy consumption.”

A ZNE ordinance has not yet been adopted by the City; however, should it be adopted by the City prior to the development of this project, the development of the Vista Reservoir No. 2 Project would be required to comply with the provision pursuant to the adopted ordinance. The development of the reservoir would be required to comply with Title 24, Part 6, of the California Code of Regulations (the CalGreen Code). Additionally, in July 2013, the City of Desert Hot Springs adopted an Energy Action Plan (EAP), to which the project will be required to adhere. However, the operation of the new reservoir would not require additional energy beyond that which the site currently requires to operate. The existing tank operates by gravity and is fed by an existing off-site booster station. The existing booster pump will not be running more frequently to fill the new reservoir, with the exception of the energy required to facilitate the initial fill of water within the reservoir once in operation. The purpose of the proposed reservoir is for back up; as such, any time that it is used, it will be used in place of the existing tank. Therefore, the required energy to operate the project represents a net zero increase.

Additionally, the existing hydropneumatic station is only being relocated, it won't be expanded/up-sized, so it will result in no additional power consumption either. Furthermore, no natural gas would be required to operate the proposed project, and trips to the project site would occur only on an as needed basis for routine or emergency maintenance purposes after construction. As such, petroleum consumption associated with implementation of the Vista Reservoir No. 2 Project would not be considered unnecessary, inefficient, or wasteful.

According to SCE's website¹, SCE is committed to delivering power reliably and to meet demand; SCE is expanding and upgrading the transmission and distribution networks to meet the region's growing demand for electricity, and improve grid performance, while meeting California's ambitious renewable-power goals. As such, it is anticipated that SCE will continue to have ample power supply to serve the project without the need for additional electrical capacity. As such, with implementation of MM **AQ-2** to minimize construction energy impacts, it is not anticipated that the project would either result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts under these issues are considered less than significant.

¹<https://www.sce.com/about-us/reliability/meeting-demand>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following section has been prepared based on a geotechnical report entitled “Geotechnical Exploration, MSWD Vista Reservoir Tank Site, Valencia Drive, Desert Hot Springs, County of Riverside, California” prepared by TKE Engineering, Inc. dated September 18, 2020 and is attached as Appendix 4.

a. Ground Rupture

Less Than Significant With Mitigation Incorporated – The project site is located in the City of Desert Hot Springs within the County of Riverside, which is situated near several active faults, including the North and South Branches of the San Andreas fault, which are considered to be Alquist-Priolo fault zones. Figure VII-1 shows where these faults are located as depicted in the City of Desert Hot Springs General Plan, which depicts faults within the City boundary as well as within and around its Sphere of Influence (SOI). According to Figure VII-1, the site is not located within any Alquist-Priolo fault zone; however, the project site is delineated as being located within a Riverside County

Designated Fault Zone. The Alquist-Priolo fault zone is approximately 1.5 miles southwest of the project site. According to the Geotechnical Exploration provided as Appendix 4 to this Initial Study, the proposed reservoir is located approximately 150 feet northeast of a mapped fault. A fault or ground rupture can presumably occur anywhere within the mapped zones unless proven otherwise. No evidence of site faulting was observed during the field exploration. Based on this information, the risk for ground rupture at the site location is considered to be moderate. The project does not propose any human occupancy structures or other structures that will place people on the site for long periods of time or pose a significant threat to people or property from ground rupture. All structures will be built to meet earthquake building standards, particularly for water storage reservoirs. However, to protect future structures from severe damage from ground shaking, and potential ground rupture the following mitigation measure will be implemented by MSWD for construction of the reservoir to prevent a catastrophic failure of this facility during a future regional seismic event.

GEO-1 Based upon the geotechnical investigation (Appendix 4 of this document), all of the recommended seismic design measures identified in Appendix 4 (listed on pages 7-17) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including seismic related hazards on the proposed water storage reservoir.

With the implementation of the above mitigation measure, the proposed project would have a less than significant potential to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault.

Strong Seismic Ground Shaking

Less Than Significant With Mitigation Incorporated – As stated in the discussion above, several faults run through the City, and as with much of southern California, the proposed structures will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future, particularly due to the site's location within a fault zone designated by Riverside County, and due to the site's proximity to an Alquist-Priolo fault zone, as shown in Figure VII-2. As a result, and like all other development projects in the City and throughout the southern California region, the proposed project will be required to comply with all applicable seismic design standards contained in the 2019 California Building Code (CBC). Compliance with the CBC and the use of best management design practices will ensure that structural integrity will be maintained in the event of an earthquake. Additionally, the project will be required to comply with the recommendations contained within the 2018 Geotechnical Investigation Report and summarized above, which includes developing the project in accordance with the 2016 CBC, Section 1805.5.11 and 1803.5.12. Even though the project will be subject to strong seismic ground shaking, with the incorporation of these design recommendations into future structures, the exposure of people or structures to potential substantial adverse effects (including the risk of loss, injury, or death), will be greatly minimized. The potential for significant impacts to occur due to strong seismic shaking can be reduced to a less than significant level with implementation of standard seismic design requirements appropriate for the expected level of seismic shaking as summarized in the text above. As such, mitigation measure (MM) **GEO-1** will ensure that the seismic-related geotechnical recommendations are enforced as requirements for the proposed project, which will ensure that impacts associated with strong ground shaking will be less than significant.

Seismic-Related Ground Failure Including Liquefaction

Less Than Significant Impact – The three factors determining whether a site is likely to be subject to liquefaction include seismic shaking, type and consistency of earth materials, and groundwater level. Liquefaction of saturated cohesionless soils can be caused by strong ground motion resulting from earthquakes. Soil liquefaction is a phenomenon in which saturated, cohesionless soils lose their strength due to the build-up of excess pore water pressure during cyclic loading such as that induced

by earthquakes. According to the City of Desert Hot Springs General Plan Seismic Hazards Map (Figure VII-2), the project site is located within a general area known to be susceptible to liquefaction. However, according to the Geotechnical Evaluation, due to the absence of shallow groundwater, potential for liquefaction is considered non-existent. Furthermore, dynamic settlement can also exist if loose sandy soils are subjected to ground shaking. However, due to the dense nature of underlying materials dynamic dry settlement within the project site is expected to be negligible and not a significant design concern. Therefore, the proposed project would have a less than significant potential to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction.

Landslide

Less Than Significant With Mitigation Incorporated – According to the City of Desert Hot Springs General Plan EIR, Landslides are found along the perimeter of the City on properties abutting the surrounding hills and mountains. The proposed project site is located along the foothills of the Little San Bernardino Mountains, and is therefore assumed to be located within an area of moderate susceptibility to landslides. The site design includes a retaining walls, which are designed to stabilize the slopes and minimize erosion within the project site. With construction of the proposed retaining wall, and compliance with recommended design and construction measures outlined in the Geotechnical Investigation (Appendix 4), which are enforced by MM **GEO-1** above, the project would have a less than significant potential to expose people or structures to potential substantial adverse landslide effects, including the risk of loss, injury, or death involving landslides. Any impacts under this issue are considered less than significant with implementation of MM **GEO-1**. No further mitigation is required.

- b. *Less Than Significant With Mitigation Incorporated* – During construction and operation, the project has a potential for soil erosion. Due to the area of disturbance associated with site clearing and grading, and the retaining walls necessary to stabilize the hillside, there is a potential for soil erosion to occur. Stabilization of the hillside upon which the reservoir will be constructed is incorporated into the site design, as stabilization measures are necessary to ensure that the reservoir is placed on engineered fill. Once the level surface has been manufactured, the potential for soil erosion will be minimal. However, during project constructed when soils are exposed, temporary soil erosion may occur, which could be exacerbated by rainfall. Project grading would be managed through the implementation of best management practices to achieve concurrent water quality controls during and after construction is completed and the 300,000-gallon reservoir is in operation. Additionally, recommended design and construction measures outlined in the Geotechnical Investigation (Appendix 4) and enforced through implementation of MM **GEO-1** above will ensure that soil erosion is managed during operation of the new reservoirs. Additionally, the following mitigation measures shall also be implemented to address these issues:

GEO-2 *Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup such that erosion does not occur.*

GEO-3 *All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the 300,000-gallon supplemental reservoir with associated water improvements is being constructed.*

With implementation of the above mitigation measures, as well as MM **GEO-1**, and the mandatory erosion control measures incorporated in the site design (i.e. retaining walls and extensive

compacted fill), the project will not result in substantial soil erosion or the loss of topsoil. No further mitigation is necessary.

- c. *Less Than Significant With Mitigation Incorporated* – As previously stated, the proposed project will develop a new reservoir that will be 34’ in height and 40’ in diameter with a physical capacity of 300,000 gallons. Through implementation of the site design, and implementation of the design measures outlined in the Geotechnical Evaluation, which shall be implemented through the following measure, implementation of the project would not result in a significant impact from occurring under this issue:

GEO-4 *Based upon the geotechnical investigation (Appendix 4 of this document), all of the recommended design measures identified in Appendix 4 (listed on pages 7-17) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site.*

The recommended measures outlined in the Geotechnical Study will ensure that any potential impacts regarding soil stability will be mitigated to a level of less than significant. Therefore, with implementation of the stabilizing measures identified in the site plan, the project would not 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

- d. *Less Than Significant With Mitigation Incorporated* – According to the Geotechnical Report (Appendix 4), the field exploration indicated that the subsurface conditions at the tank facility are primarily underlain by minor amounts of artificial fill underlain by dense Fanglomerate which is turn underlain (unconformably) by gneissic and mafic igneous rocks. The dense Fanglomerate is expected to be less than 21 on the Expansion Index (EI), which is considered low to very-low.² Expansive soils are characterized by the ability to undergo significant volume change (shrink and swell) as a result of variation in soil moisture content. The Geotechnical Report included measures that will be enforced through MM **GEO-4** to prevent any fill used in development of the project site from including any expansive soils. Therefore, with implementation of MM **GEO-4**, the development of the new reservoir will have a less than significant potential to create a substantial risk to life or property by being placed on expansive soils because none exist on the site. No further mitigation is required.
- e. *No Impact* – The project does not propose any septic tanks or alternative wastewater disposal systems. Therefore, determining if the project site soils are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater does not apply. No impacts are anticipated. No mitigation is required.
- f. *Less Than Significant With Mitigation Incorporated* – The potential for discovering paleontological resources during development of the project is considered highly unlikely based on the fact that the site has been previously engineered and disturbed at depth. No unique geologic features are known or suspected to occur on or beneath the sites. However, because these resources are located beneath the surface and can only be exposed as a result of ground disturbance activities, the following measure shall be implemented:

GEO-5 *Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with MSWD’s onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California*

² https://www.fema.gov/media-library-data/20130726-1825-25045-8152/expansive_soils_explanations.txt

Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the following technical study: *Air Quality and GHG Impact Analyses, Mission Springs Water District, Vista Reservoir No. 2 Project, Desert Hot Springs, California* dated September 22, 2020 prepared by Giroux & Associates. This technical study is provided as Appendix 1 to this document.

a&b. *Less Than Significant Impact* –

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07. AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions, are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned).

Thresholds of Significance

In response to the requirements of SB 97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of Project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to “select the model or methodology it considers most appropriate.” The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO₂ equivalent/year. In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions which recommended a threshold of 3,000 MT CO₂e for all land use projects. This 3,000 MT/year recommendation has been used as a guideline for this analysis. In the absence of an adopted numerical threshold of significance, Project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

Construction Activity GHG Emissions

The project is assumed to require less than one year to complete construction. The CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO₂e emissions identified in Table VIII-1.

**Table VIII-1
 CONSTRUCTION EMISSIONS (Metric Tons CO₂e)**

	CO₂e
Year 2021	96.1
Amortized	3.2

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less than significant.

Consistency with GHG Plans, Programs, and Policies

The City of Desert Hot Springs adopted an Initial Study, Negative Declaration for a Climate Action Plan in 2013. The plan identifies 80 specific actions to reduce GHG emissions. However, the proposed project is GHG neutral and will not increase electrical consumption or require additional personnel or maintenance.

Since the project results in GHG emissions below the recommended SCAQMD 3,000 metric ton threshold for any land use project, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – The proposed project consists of constructing a new 300,000-gallon reservoir, retaining wall, and associated site improvements. During construction of the proposed new reservoir and associated improvements, there are activities that can expose the public to significant hazards from accidental circumstances. The first pathway occurs when petroleum products are accidentally released from construction equipment or storage facilities. For example, vandalism can cause a release from stored fuels, or a hydraulic hose may break on a large piece of construction equipment. This type of impact is readily mitigated by immediately stopping the construction activity; controlling the accidental release; and carrying out remediation of the area contaminated by the spill. The following mitigation measure addresses this circumstance, and with implementation of this measure, no residual contamination will remain.

HAZ-1 *Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a*

location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of City Building & Safety Department, and Riverside County Site Cleanup Program. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that a site has been remediated to a threshold that poses no hazard to humans) of the contaminated area.

Roadways adjacent to the project site are public roads that can be used by any common carrier to or from the local area. For such transporters, the existing regulatory mandates ensure that the hazardous materials and any hazardous wastes transported to and from the Project site will be properly managed. These regulations are codified in Titles 8, 22, and 26 of the California Code of Regulations. For example, maintenance trucks for construction equipment must transport their hazardous materials in appropriate containers, such as tanks or other storage devices. In addition, the haulers must comply with all existing applicable federal, state and local laws and regulations regarding transport, use, disposal, handling and storage of hazardous wastes and material, including storage, collection and disposal. Compliance with these laws and regulations related to transportation will minimize potential exposure of humans or the environment to significant hazards from transport of such materials and wastes.

Operation of the proposed reservoir will not involve potential for routine transport or use of hazardous materials or routine generation of hazardous wastes. Compliance with all federal, state and local regulations, as well as compliance with MM **HAZ-1**, above, will ensure that the project operates and is constructed in a manner that poses no substantial hazards to the public or the environment. Therefore, impacts under these issues are considered less than significant with mitigation incorporated.

- c. *No Impact* – The nearest schools are located at a distance greater than one quarter mile from the proposed project site. Bella Vista Elementary School, located at 65750 Avenida Jalisco and Painted Hills Middle School, located at 9250 Sonora Drive within the City of Desert Hot Springs are more than one quarter mile to the west of the proposed project site. Furthermore, the operations of this project do not include any new use of hazardous materials, and thus will not pose a significant risk to any nearby schools. No impacts are anticipated. No mitigation is required.
- d. *No Impact* – The proposed project is not located in an area that has been included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result it will not create a significant hazard to the public or environment. According to the California State Waterboard’s GeoTracker, which provides information regarding Leaking Underground Storage Tanks, there are no locations within a 2,500-foot radius of any of the proposed Project facilities that is identified as Leaking Underground Storage Tank (LUST) site or Department of Toxic Substances (DTS) site (Figure IX-1, see GeoTracker figure), nor are there any remediated LUST or DTS cleanup sites. Furthermore, the nature of the proposed project is not such that persons working or residing in the area would be exposed to any hazards from any nearby contaminated sites. Thus, the proposed construction and operation of the site with a new reservoir, will not create a significant hazard to the population or to the environment from their implementation. No impacts are anticipated. No mitigation is required.
- e. *No Impact* – The Palm Springs International Airport is the closest airport to the proposed project site is located approximately 9.5 miles south of the proposed project. The proposed reservoir site is not located within an Influence Area identified in the Palm Springs International Airport section of the

Riverside County Airport Land Use Commission's Compatibility Plan.³ Given the large distance between the proposed project and nearby airports, project implementation would not result in a safety hazard for people residing or working in the project area. Furthermore, there are no private airstrips/public use airports located within two miles of the project site. Therefore, the development of the proposed Vista Reservoir No. 2 Project would have no potential to result in a safety hazard or excessive noise for people residing or working in the project area.

- f. *Less Than Significant Impact* – The proposed project will be confined to the project site, with minimal potential to interfere with the adjacent roadway. The project includes the following components: retaining wall and hillside stabilization, stormwater management BMPs, installation of a new access road relocation of the existing hydropneumatics station and the electrical cabinet, grading, wrought iron and chain link fence, and a new 300,000 gallon water storage reservoir and related piping. Within the proposed reservoir site, the proposed facilities are not anticipated to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, particularly given that the project includes a new, improved access road. Ingress and egress of maintenance trucks and construction vehicles would come from Valencia Drive, which is a residential street that terminates at the project site, and also leads to a hiking trail, which is the rationale for the development of the proposed boundary fence. The project site is located within a residential area with limited traffic in the vicinity of the project. Additionally, the project site is located at the terminus of the adjacent roadway. The construction activities would not have a significant impact on the flow of traffic, and therefore no mitigation will be required to address any traffic disruption, as none will occur. Therefore, the project will not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Any impacts under this issue are considered less than significant.

- g. *Less Than Significant Impact* – The proposed project is located against a hillside with residences located south and west of the site. There is a large amount of open space in the adjacent hills that could be susceptible to wildfires should one occur; however, the vegetation along the hillside is typical of desert vegetation, which is generally low to the ground consisting of the following types of vegetation: creosote bush (*Larrea tridentata*), catclaw acacia (*Acacia greggii*), white bursage (*Ambrosia dumosa*), brittlebush (*Encelia farinosa*), desert trumpet (*Eriogonum inflatum*), hairy desert sunflower (*Geraea canescens*), , desert dandelion (*Malacothrix glabrate*), and Ferocactus (*Ferocactus sp.*),. Non-native, invasive plant species identified within the Project area include Saharan mustard (*Brassica tournefortii*), foxtail brome (*Bromus madritensis ssp. rubens*), Russian thistle (*Salsola tragus*), Mediterranean grass (*Schismus ssp.*), and planted Eucalyptus trees around the existing reservoir (*Eucalyptus spp.*). According to the City's General Plan, the project is located adjacent to a high fire hazard zone within a State Responsibility Area (SRA) (Figure IX-2). The project does not include the use of flammable or explosive materials. Based on the type of uses proposed, this project has no identifiable potential to expose people or property to wildland fires. Additionally, it should be noted that this project will increase the area's water supply capabilities and is viewed as a benefit to fire protection. Therefore, any impacts are considered less than significant. No mitigation is required.

³ <http://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/18-%20Vol.%201%20Palm%20Springs%20International.pdf>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* – The proposed reservoir will be located in a residential area adjacent to a hillside that will require earthwork to stabilize the surface upon which the new reservoir will be placed, as well as the area surrounding the existing reservoir. The site contains an existing reservoir that will remain in use once the new reservoir is constructed and connected to MSWD’s water distribution system. Therefore, the addition of the new reservoir would be comparable to that which exists on site at present. The surface of the site as it presently exists is located adjacent to the foothills of the Little San Bernardino Mountains, and contains some natural vegetation, characterized mostly by shrubs that are similar to that which populates the surrounding hillside. The majority of the site will require removal of existing vegetation and, as previously stated, a retaining wall will be installed to enable the development of a compacted level surface adjacent to the existing reservoir. Three sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater; from stormwater runoff; and potential discharges of pollutants, such as accidental spills. MSWD is the wastewater collection agency in the area, though no connection to wastewater is necessary to serve the proposed Project. The project is located within the Colorado River Basin Regional Water Quality Control Board

(RWQCB) jurisdiction. To address stormwater and accidental spills within this environment, any new project must ensure that site development implements a Storm Water Pollution Prevention Plan (SWPPP) to control potential sources of water pollution that could violate any standards or discharge requirements during construction. In the short term, construction activities will have some potential to affect the quality of stormwater discharged from the project site. Land disturbance activities could result in potential erosion and sedimentation immediately adjacent to the project site. Spills or leaks of petroleum products used by construction equipment could also potentially affect the quality of surface water. The project will be required to obtain a general construction National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit prior to the start of construction. Obtaining coverage under the General Construction NPDES permit requires the preparation and implementation of a SWPPP, which specifies Best Management Practices (BMPs) that must be implemented during construction. Compliance with the terms and conditions of the NPDES and the SWPPP, is mandatory and is judged adequate mitigation by the regulatory agencies for potential impacts to stormwater during construction activities. Implementation of the following mitigation measure is also considered adequate to reduce potential impacts to stormwater runoff to a less than significant level.

HYD-1 MSWD shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:

- **The use of silt fences;**
- **The use of temporary stormwater desilting or retention basins;**
- **The use of water bars to reduce the velocity of stormwater runoff;**
- **The use of wheel washers on construction equipment leaving the site;**
- **The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;**
- **The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and**
- **Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.**

With implementation of these mandatory Plans and their BMPs, as well as MM HYD-1 above, the development of a new 300,000 gallon water storage reservoir will not cause a violation of any water quality standards or waste discharge requirements.

- b. *Less Than Significant Impact* – The project does not propose the installation of any water wells that would directly extract groundwater. The proposed project will connect to existing water connections, though some of the onsite piping will be relocated as part of the proposed project, at the Vista Reservoir site. The proposed reservoir will be filled to store additional water, and will operate only when the existing reservoir is not in service. The amount of pervious surface on the site after construction will decrease by about 6,900 square feet (SF), which reflects the new amount of paved area containing either foundation for the new reservoir or asphalt to develop the proposed new access road. Runoff generated by the increase in paved area will be directed by the new storm drain culverts designed to convey flows through and around the site. The development of the new reservoir itself will allow MSWD to store a larger volume of water through the addition of a 300,000 gallon storage tank, which will ultimately provide additional storage capacity for MSWD's customers. Thus, the

operation of the new reservoir will require minimal new outside water sources to supply water to the project site. Thus, because of the size and nature of the proposed project, there is a less than significant potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin as a result of the proposed project.

- c(i). *Less Than Significant Impact* – Impacts to the existing drainage pattern of the site or area could occur if development of the project results in substantial on- or off- site erosion or siltation. The project site currently contains an existing reservoir and will require construction of a retaining wall on the adjacent hillside to develop a level surface upon which to construct the new reservoir (refer to Figure 3, Site Plan). Construction of the proposed reservoir includes the installation of three retaining walls that would enable the construction of the extended tank pad, and to collect sheet flow from the adjacent slopes and convey sheet flow safely through and around the site. The existing reservoir site is located at the foothills of the Little San Bernardino Mountains hillside. Onsite drainage within the site was recently discovered to flow across the reservoir site and onto said adjacent southerly property rather flowing to the existing V-Ditch. The retaining wall will improve conditions by reducing the tributary area of surface flows to the reservoir. The proposed retaining wall will provide new drainage management through a concrete v-ditch along the perimeter to collect any sheet flow from the adjacent slopes and convey it safely through the site. Additionally, the proposed project will install several storm drain culverts to manage runoff at this site, which will therefore improve the existing drainage patterns at this site. The addition of the engineered fill upon which the new reservoir will be placed, stabilized by the installation of the proposed retaining walls, will not result in a significant increase in runoff to this storm drain due to the downhill trajectory and capacity of the storm drain. The project will require the implementation of a SWPPP and implementation of hazardous material best management practices, which will ensure that any potential discharge of polluted material does not occur or is remediated in the event of an accidental spill. Therefore, with the implementation of the site drainage plan as defined by the site design, and the limited amount of pervious surface onsite that will become impervious as a result of the project, implementation of the project will not substantially alter the drainage pattern of the site in a manner that would result in substantial erosion or siltation onsite or offsite due to the construction of onsite drainage. In fact, part of the purpose for the proposed project is to improve erosion and drainage management onsite. Any impacts under this issue are considered less than significant based on the project design. No mitigation is required.
- c(ii). *Less Than Significant Impact* – Please refer to response IX(c[i]) above. Impacts to the existing drainage pattern of the site or area could occur if the development of the project results in an increased amount of flooding onsite or offsite. As stated above, the project site's surface currently consists of compacted and loose soils adjacent to a hillside that requires stabilization through the installation of retaining walls as part of the proposed project actions. All on-site flows will be directed toward the street via new storm drain culverts and drain pipes. This drainage trajectory will prevent any on- and off-site flooding; based on the project drainage plans, no offsite flooding is anticipated, particularly because a purpose of the proposed project is to improve the flow of on- and off-site drainage at the site. Therefore, implementation of the project will not substantially increase the rate or amount of surface runoff resulting in flooding onsite or offsite, and any impacts under this issue are considered less than significant. No mitigation is required.
- c(iii). *Less Than Significant Impact* – Please refer to response IX(c[i]) and IX(c[ii]) above. The project will not substantially create or contribute runoff water that would exceed the capacity of existing or planned stormwater capacity, or provide substantial additional sources of polluted water. At present, the site consists mostly of compacted dirt and hillside with vegetation that will be developed into a level surface upon which to construct the new reservoir, related piping, retaining walls and other proposed site improvements. The project will require the implementation of a SWPPP, and will implement BMPs to ensure that discharge of polluted material does not occur or is remediated in the event of an accidental spill. Additionally, the project will install several storm drain culverts to manage runoff at this site, which will therefore improve the existing drainage patterns at this site. In most cases onsite surface flows will be directed to Valencia Drive, which collects stormwater. Therefore, given that the proposed project includes drainage improvements and drainage management, the

proposed project will have a less than significant potential to 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. No mitigation is required.

- c(iv). *No Impact* – According to the City of Desert Hot Springs General Plan Flood Hazard Map (Figure X-1), the proposed project is not located within a mapped flood zone. Therefore, the proposed project site is not located in a 100-year flood hazard area. Furthermore, the proposed project includes drainage improvements and drainage management through the installation of retaining walls and stormwater culverts to direct flows away from adjacent properties to Valencia Drive, which collects and transports area stormwater. This is considered a benefit to the site that would further manage any onsite flood hazards. Figure X-1 illustrates that the project site is not located within a 100-Year floodplain, and therefore development of the site with the new reservoir would not impede or redirect flood flows as none would occur at the project site. No impacts under this issue are anticipated, and no mitigation is required.
- d. *Less Than Significant With Mitigation Incorporated* – As stated above under issue X(c[iv]), according to the City of Desert Hot Springs General Plan Flood Hazard Map (Figure X-1), the proposed project is not located within a mapped flood zone. Therefore, the proposed Project site is not located in a flood hazard area. The project site is not located near any large bodies of water, so impacts associated with seiche or tsunami are not anticipated to occur. Mudflow typically occurs on hillsides, and though the project is located on a hillside, the project site will be stabilized through retaining walls and again further through the implementation of recommendations made within the Geotechnical Study, enforced through MMs **GEO-1** and **GEO-4** above, which would prevent a significant impact from occurring due to mudflow. Therefore, the development of the new reservoir would not risk release of pollutants due to project inundation. No impacts are anticipated to occur under this issue. No mitigation is required.
- e. *Less Than Significant Impact* – The proposed project is located within the Desert Hot Springs subbasin of the Coachella Valley Groundwater Basin. The Desert Hot Springs subbasin is has been designated as very low-priority, by the Department of Water Resources (DWR).⁴ The Sustainable Groundwater Management Act (SGMA) “requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline.”⁵ Given that the project is located within a subbasin that is considered very low priority, no conflict or obstruction of a water quality control plan or sustainable groundwater management plan is anticipated. Furthermore, the proposed project is designed to enable MSWD greater storage of water, but will not result in greater demand for water supply. This second reservoir will provide system redundancy and is anticipated to only operate in the event that the existing reservoir on the site is not in operation. Because the project is a water storage project, it is anticipated that with conservative construction practices (outlined under Hazards and Hazardous Materials above, and above in this Subchapter), the proposed project would have a less than significant potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

⁴ <https://www.cvwd.org/357/Sustainable-Groundwater-Management-Act>

⁵ <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – The proposed new reservoir with associated site improvements will be constructed on land that contains an existing reservoir that is designated for Public/Institutional use, with a Zoning Classification of Public/Institutional (see Figure XI-1, City of Desert Hot Springs General Plan Land Use Policy Plan Map). Essential infrastructure improvements, such as water storage reservoirs, can be constructed within any land use designation; however, this project is located within a land use designation that is appropriate for the proposed reservoir development. The uses surrounding the project are generally Residential in nature or Open Space uses. Given that the proposed new reservoir would be developed within a site already containing an existing reservoir, the project would have no potential to physically divide an established community, and as such, no impacts are anticipated under this issue and no mitigation is required.

- b. *No Impact* – Please refer to the discussion under issue XI(a) above. As previously stated, the Project site is zoned by the City of Desert Hot Springs as Public/Institutional, and the Land Use Designation of the Project site is Public/Institutional. In general, water production facilities are zone independent because they are needed to support all types of development. The area immediately surrounding the project is generally residential in nature or supports open space use. The project site currently contains one reservoir and associated infrastructure. The addition of a second reservoir at this location will not result in a conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, no impacts are anticipated under issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

a&b. *No Impact* – The proposed reservoir is located in the City of Desert Hot Springs within a site containing an existing reservoir. The project is located adjacent to the Little San Bernardino Mountains to the north and east, and residences to the south and west. According to the Mineral Resources map prepared for the City of Desert Hot Springs General Plan (Figure XII-1), no known mines or mineral resources are known to occur on or in the vicinity of the project site. As no current mining operations exist at the project site or have been identified by the City, implementation of the proposed project will 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 or a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. No impacts are anticipated under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

Background

Noise is generally described as unwanted sound. The proposed project will include the development of a reservoir with associated water system connections and site improvements. The site is located in a residential area adjacent to the Little San Bernardino Mountains. The nearest resident to the area in which the reservoir will be constructed is between 60 and 150 feet away. The property boundary is about 60 feet from the nearest residential home, while the area in which the majority of the construction will occur is about 150 feet from this same residential home.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called "A-weighting," written as "dBA."

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

City of Desert Hot Springs Noise Regulations and Standards

The City of Desert Hot Springs noise standards are found in Section 17-040.180 of the Municipal Code which states:

- In residential areas, no exterior noise level shall exceed 65 dBA and no interior noise level shall exceed 45 dBA.

Construction noise is exempt from these standards as long as work is limited to the hours of 7 am to 5 pm Monday through Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitted on Sundays or holidays.

- a. *Less Than Significant With Mitigation Incorporated* – Implementation of the proposed project will not generate substantial noise. As stated above, the nearest sensitive receptor from the property boundary is about 60 feet from the nearest residential home, while the area in which the majority of the construction will occur is about 150 feet from this same residential home. The background noise at the project site is low because it is in a residential area that abuts the Little San Bernardino Mountains. Roadway noise is therefore limited as the adjacent roadways are residential in nature.

Short Term Construction Noise

Short-term construction noise impacts associated with the proposed project will occur over a period of six months. The earth-moving sources are the noisiest type of equipment typically ranging from 82 to 85 dB at 50 feet from the source. Temporary construction noise is exempt from the City's noise standards as long as work is limited to the hours of limited to the hours of 7 am to 5 pm Monday through Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitted on Sundays or holidays. The proposed project would be constructed in compliance with the City's noise standards, and therefore construction of the project would be less than significant. However, to minimize the noise generated on the site to the extent feasible, the following mitigation measures shall be implemented:

- NOI-1** *All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.*
- NOI-2** *All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.*
- NOI-3** *No construction activities shall occur during the hours of 5 PM through 7 AM, or 6 PM to 6 AM during daylight savings time Monday through Saturday; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.*
- NOI-4** *Equipment not in use for five minutes shall be shut off.*
- NOI-5** *Equipment shall be maintained and operated such that loads are secured from rattling or banging.*
- NOI-6** *Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.*
- NOI-7** *MSWD will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by MSWD.*

NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, as determined by MSWD.

Long-Term Operational Noise

The proposed project will not cause any measurable permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project, in particular because this project will construct a second reservoir at a location containing an existing reservoir. The operation of the new reservoir will not require an introduction of new noise generating equipment at this site. Additionally, reservoirs typically do not generate substantial noise because they do not require a motor to store or convey water. Existing noise onsite is limited to the residential background noise generated by the surrounding residences and residential roadway noise from Valencia Drive. Therefore, through the implementation of the mitigation measures identified above, neither operation or construction of the proposed project would violate noise standards outlined in the City's Municipal Code. Impacts under this issue are considered less than significant with mitigation incorporated.

- b. *Less Than Significant With Mitigation Incorporated* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The background vibration-velocity level in residential areas is generally 50 VdB; levels would generally be considered even less in rural areas such as the area surrounding the project footprint. Groundborne vibration is normally perceptible to humans at approximately 65 VdB, while 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. Construction activity can result in varying degrees of groundborne vibration, but is generally associated with pile driving and rock blasting. Other construction equipment, such as air compressors, light trucks, hydraulic loaders, etc. generates little or no ground vibration. While no enforceable regulations for vibration exist within Riverside County, the Federal Transit Association (FTA) guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential project related vibration impacts.

In the short term, it is possible that groundbreaking construction equipment and other equipment required to construct the whole of the project—including: retaining wall and hillside stabilization, stormwater management BMPs, installation of a new access road, relocation of the existing hydropneumatics station and the electrical cabinet, grading, wrought iron fence, and a new 300,000 gallon water storage reservoir and related piping—may have some potential to create some vibration to the nearest sensitive receptors at some sites within the project footprint. However, any short-term impacts to the nearest sensitive receptors would be considered less than significant through implementing the following mitigation measure:

NOI-9 MSWD shall require the construction contractor(s) to implement the following measures:

- **Ensure that the operation of construction equipment that generates high levels of vibration including, but not limited to, large bulldozers, loaded trucks, pile-drivers, vibratory compactors, and drilling rigs, is minimized to below 72 vibration decibels (VdB), within 45 feet of existing residential structures and 35 feet of institutional structures (e.g., schools) during construction. Use of small rubber-tired bulldozers shall be enforced within these areas during grading operations to reduce vibration effects.**

- ***The construction contractor shall provide signs along the roadway identifying a phone number for adjacent property owners to contact with any complaint. During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests shall be conducted at the property line near the nearest occupied residences., If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold. These measures may include, but are not limited to the following: use different construction methods, slow down construction activity, or other mitigating measures to reduce vibration at the property from where the complaint was received.***

With implementation of the above mitigation measure, impacts from project related vibration would be considered less than significant. No further mitigation is required.

- c. *Less Than Significant Impact* – According to the City of Desert Hot Springs General Plan, aircraft noise impacting the community emanates from commercial and general aviation operations at the Palm Springs International Airport, located about 9 miles south of the project site. The Palm Springs International Airport: Airport Master Plan and Part 150 Noise Compatibility Study indicates that flight tracks and patterns that aircraft are assumed to follow outlined in the Airport Noise Study indicate limited over flights in Desert Hot Springs. Ultimately, the Airport Master Plan concluded that existing and future noise levels associated with Airport operations will have no significant impact on the City of Desert Hot Springs or its Sphere of Influence (SOI). Given that the proposed Vista Reservoir site is located within the City of Desert Hot Springs, it is not anticipated that persons working in the project area would be exposed to excessive noise levels generated by the nearby Airport. No private airstrips are located in close proximity to the proposed project; therefore, impacts under this issue is considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The type of use planned for the project site is not of a type that would induce substantial population growth in the area. No housing is proposed as part of the project. Though construction of a new 300,000-gallon reservoir with associated site improvements will require a temporary work force, this is short-term and with about 5-10 employees onsite during construction, it will not induce population growth. Additionally, the number of employees needed to operate the new reservoir with water improvement facilities will not be increased; MSWD employees will visit the site on an as needed or planned maintenance basis, which may involve one or two employees per visit. Therefore, impacts under this issue are considered less than significant and no mitigation is required.

- b. *No Impact* – The proposed project will occur on a site that currently contains an existing 300,000-gallon reservoir; implementation of the project will require development of retaining walls to manufacture a level surface upon which the new reservoir will be constructed, as well as drainage improvements and other related site improvements. No housing is proposed as part of the project and no persons reside within the project site. Therefore, implementation of the project as a whole—which consists of a reservoir and relocation of the existing onsite hydropneumatics station and the electrical cabinet and site improvements—will not displace any existing housing or displace a substantial number of people that would necessitate the construction of replacement housing elsewhere. No impacts will occur as a result of project implementation. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: 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:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The City of Desert Hot Springs is currently served by the Riverside County Fire Department (RCFD). The RCFD currently has two fire stations: Station #36 and Station #37, which, together, responded to approximately 5,746 calls in FY15.⁶ These calls included medical emergencies, vegetation and structure fires, vehicle accidents, public assistance and false alarms. Station #37 is the fire station located closest to the project at about 2 miles southwest of the proposed project along Pierson Boulevard. The project will not include the use or storage of highly flammable materials. The project will develop a new reservoir and water infrastructure improvements that could benefit fire protection services by providing greater water storage to the MSWD customers. The 300,000 gallon water storage reservoir does not present a fire hazard, though it is located just south of a high fire hazard severity zone within a State Responsibility Area, and therefore, there may be a potential for wildfires at this site (see Figure IX-2). The reservoir will be made of steel and concrete, which are considered fire-resistant. Thus, with no greater potential for fire risk at this project site, no new or altered fire protection facilities will be required to serve this project. Any impact to the existing fire protection system is considered less than significant. No additional mitigation is required.

- b. *Less Than Significant Impact* – The proposed project site is located on the outskirts of the City of Desert Hot Springs in a residential area adjacent to the Little San Bernardino Mountains. The City of Desert Hot Springs Police Department provides the citizens of the Planning Area with police services and protection. According to the City’s General Plan EIR, Service is primarily provided from the Police Department Office at 65-950 Pierson Blvd, which is about 2 miles south/southwest of the project site. Additional personnel are provided at a satellite office at the Police Neighborhood Office at 66140 West Arroyo located in Tedesco Park. Police services are dispatched from the Police Department Office, but the satellite office is centrally located for greater police presence in the neighborhood and efficient response. Installation of a second reservoir at the site, which currently contains an existing reservoir, will require development of a retaining wall and hillside stabilization to ensure that the surface upon which the new reservoir is constructed is stable. The proposed project is not the kind of use that would likely attract criminal activity, except for random trespass and theft; however, any random trespass is unlikely given the new security fence that will enclose the property. The proposed facility would not be readily accessible to the public as the project site is currently fenced and the whole of the new project footprint will be fenced, so a less than significant potential exists for demand for police protection or expansion of police infrastructure. Due to the project’s location within an

⁶ City of Desert Hot Springs General Plan EIR (pg. 4.15-1)

existing facility, and the lack of new people associated with operation of the proposed facilities, implementation of the proposed project would not substantially increase the demand for law enforcement services beyond that already existing at the Project site.

- c. *Less Than Significant Impact* – The proposed project is located within the Palm Springs Unified School District. Within the City and SOI, there are five elementary schools, two middle schools, and one high school, as well as the Wenzlaff Education Center, a continuation school. Bella Vista Elementary School, located at 65750 Avenida Jalisco and Painted Hills Middle School, located at 9250 Sonora Drive within the City of Desert Hot Springs are the closest schools to the project site, located less than a mile to the west. As discussed under Chapter XIV, Population and Housing, above, the project would not induce population growth within the City, as it will neither construct housing, nor result in a growth in employment opportunities within the area. Thus, the proposed project will not generate an increase in elementary, middle, or high school population. Therefore, any impacts under this issue are considered less than significant. No mitigation is required.
- d. *No Impact* – Because the project would develop infrastructure through the development of a 300,000-gallon reservoir adjacent to an existing reservoir and would not develop any commercial, residential, or industrial facilities, the proposed project is not required to pay any fees to offset impacts to school facilities. As stated in the preceding sections, the proposed project is not anticipated to create a substantial increase in population because it does not require additional MSWD staff to operate this second reservoir. The nearest park is Veteran's Memorial Park, which is located about a half-mile south of the project site. Implementation of the proposed project will not impact any current or planned park use, as it will be constructed on land containing and adjacent to an existing reservoir. Thus, implementation of the proposed project would not cause a substantial adverse physical impact to any parks within the City. No impacts are anticipated, and no mitigation is required.
- e. *No Impact* – Other public facilities include library and general municipal services. The library system in the City of Desert Hot Springs is operated by the Riverside County Library System. Since the project will not directly induce substantial population growth, it is not forecast that the use of such facilities will increase as a result of the proposed project. As a result, the implementation of the project will not 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 public services to include other public facilities. Thus, no impacts are anticipated under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – As previously discussed in Section XIV, Population and Housing and Section XV, Public Services, this project will not contribute to an increase in the population beyond that already allowed or planned for by local and regional planning documents. Therefore, this project will not result in an increase in the demand for parks and other recreational facilities. It should be noted that the provision of water storage facilities (such as the proposed 300,000-gallon reservoir) is generally considered a benefit to parks and recreational uses. No impacts are anticipated. No mitigation is required.

- b. *No Impact* – The proposed project consists of the construction of a 300,000-gallon reservoir adjacent to MSWD’s existing reservoir at the Vista Reservoir site. This reservoir will connect to MSWD’s system and will be used when the existing reservoir is not in use. The project will not include any recreational facilities, nor will it require the construction of new recreational facilities or expansion of new recreational facilities because the proposed project is not anticipated to substantially induce any population growth. The use of the site as the location for the second reservoir is not forecast to require a substantial short- or long-term labor force. As a result, no recreational facilities—existing or new—are required to serve the project, thus no impacts are anticipated under this issue. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – This project does not propose any new roads. The operation of the proposed water facility has no potential to conflict with alternative transportation plans, policies or programs. The project operations in the long term will not generate significant additional traffic and no new public roads or alterations to any existing public roads will result. The proposed reservoir will be constructed entirely within the project site and will therefore not impact or otherwise decrease performance or safety of public transit, bicycle, or pedestrian facilities during this phase. Thus, the project would not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The project is not anticipated to result in a substantial number of trips such that levels of service or other State and local measures of performance would be violated, particularly given that the proposed project is located at the terminus of Valencia Avenue at the foothills of the Little San Bernardino Mountains. Therefore, based on the availability of roadways and the developed area in which the project is located, the proposed project has a less than significant potential to conflict with a program, plan, ordinance or policy addressing the circulation system.

- b. *Less Than Significant Impact* – The proposed Project would develop a new 300,000-gallon welded steel reservoir that will connect to MSWD’s existing water system on a site containing an existing 300,000-gallon reservoir. The City of Desert Hot Springs has not developed a threshold for vehicle miles travelled; however, the proposed project will require minimal vehicle miles traveled to operate once constructed. In the short term, construction of the proposed facilities will result in the generation of up to about 30-50 roundtrips per day on the adjacent roadways by construction personnel and trucks removing any excavated materials and remains of the structures on site. The total number of truck roundtrips per day is estimated to be 20 trips, plus 10-20 employee roundtrips per day. The vehicle miles traveled in these instances would likely average less than 50 miles round trip. The number of temporary truck trips will be minimized by using 15 cubic yard material haulers instead of smaller 10 cubic yard trucks to haul material onto and off of the site. Additionally, the same trucks that haul material onto the site would also carry material off of the site. Once constructed, the only traffic that would be generated by this project would be the continued occasional visits to the project site by MSWD personnel to inspect and maintain facilities, resulting in minimal vehicle miles traveled once the reservoir is in operation. As such, development of the Vista Reservoir No. 2 Project is not anticipated to result in a significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant.

- c. *Less Than Significant Impact* – The proposed project will occur entirely within the project site boundaries. Construction activities will not occur within the adjacent roadways to the project site.

Access to nearby residences on the roadways adjacent to the proposed project will not be disrupted by construction equipment or construction trips. Large trucks delivering equipment, fill material, or removing small quantities of excavated dirt or debris can enter the site without major conflicts with the flow of traffic on the roadways used to access the site. Primary access to the site will be provided along Valencia Drive, where the entrance to the site is located. The project site is located at the terminus of the adjacent roadway. The proposed project will install a new access road and new access gates to accommodate access to both the existing and proposed reservoir. This new access road will be designed such that the project would not increase hazards due to a geometric design feature or incompatible uses. Furthermore, access to the site must comply with City design standards and would be reviewed by the City to ensure that inadequate design features or incompatible uses do not occur. Additionally, the proposed project would be required to comply with all applicable fire code and ordinance requirements for construction and access to the site. Emergency response and evacuation procedures would be coordinated with the City, as well as the police and fire departments. Therefore, the proposed Vista Reservoir No. 2 Project will have a less than significant potential to substantially increase hazards due to a geometric design feature or incompatible uses. No mitigation is required.

- d. *Less Than Significant Impact* – The Project site includes direct access on public roadways and an access road on Valencia Drive, which is a residential roadway that terminates at the project site. According to the City's General Plan, Interstate-10 is considered an emergency access route. The City has a detailed Emergency Operations Plan, with which the proposed project will have no conflicts. No known emergency access plans or emergency response or evacuation plans will be affected by this project in the short- or long-term. Construction activities will not occur within the roadways adjacent to the project site boundaries. Large trucks delivering equipment will be removing materials, as well as hauling materials off of the site. These construction activities are not likely to cause conflicts to the flow of traffic based on the location of the proposed project site at the terminus of a residential roadway with ample clearance that would prevent traffic from conflicting with residential traffic or driveways of nearby residences. As such, it is not anticipated that a traffic management plan will be required to ensure adequate emergency access. No mitigation will be required to address any traffic disruption, as none is anticipated to occur. Therefore, the project would provide adequate emergency access during construction. Any impacts under this issue are considered less than significant. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial change in the significance of tribal cultural resources, 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 the California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – Only one tribe has requested consultation with the District under AB 52, the Agua Caliente Band of Cahuilla Indians. The District contacted the tribe to initiate the AB-52 process on October 19, 2020. As stated under the Cultural Resources section above, the project site contains an existing reservoir, and as such as been previously disturbed. There is a potential to unearth tribal cultural resources of importance during the earth moving activities, which includes site clearing and grading, relocation of some underground piping, and development of retaining walls necessary to stabilize the hillside. During the 30-day consultation period that concluded on November 17, 2020, the tribe did not submit a response. As such, AB-52 concluded with no tribal input, and as such, with the implementation of the mitigation measure **CUL-1**, the project has a less than significant potential to cause a substantial change in the significance of tribal cultural resources, 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 the California Native American tribe and that is either **a)** Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or **b)** A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a. Water

Less Than Significant Impact – The proposed project will construct new water facilities—a new 300,000-gallon water storage reservoir and support facilities—to store additional water within MSWD’s jurisdiction and to create a backup water system should the existing reservoir need to be taken out of service for maintenance, etc. The proposed project will occur on a site that currently contains an existing 300,000-gallon reservoir; implementation of the project will require development of retaining walls to manufacture a level surface upon which the new reservoir will be constructed, as well as drainage improvements and other related site improvements. The project will not require any additional water to operate, other than the water proposed to be stored in the proposed reservoir, which will contribute to the existing water infrastructure within MSWD’s service area boundary. With no demand for water as a result of implementing the proposed project, the development of the new 300,000 gallon water storage reservoir, connection to MSWD’s existing water system, and site improvements are not forecast to result in a significant impact pertaining to the construction of new water facilities or expansion of existing facilities.

Wastewater

No Impact – The proposed project will not develop any housing or human-occupied structures that would require connection to the wastewater collection system. The only structure proposed at this time is the 300,000 gallon water storage reservoir. Therefore, no connections to MSWD’s wastewater collection system and wastewater treatment plant are required, and with no generation of wastewater at the site, site improvements are not forecast to require or result in the construction of new wastewater facilities or expansion of existing facilities in order to serve the project.

Stormwater

Less Than Significant Impact – As stated under issue X(c[i-iv]), implementation the proposed project is not forecast to significantly alter the volume of surface/stormwater runoff that will be generated from the project site. The project site is located at the foothills of the Little San Bernardino Mountains on a hillside, which means that much of the flow of water in the vicinity runs downhill from the project area. Onsite drainage within the site was recently discovered to flow across the reservoir site and onto said adjacent southerly property rather flowing to the existing V-Ditch. The retaining walls will improve conditions by reducing the tributary area of surface flows to the reservoir. The proposed retaining wall will provide new drainage management through a concrete v-ditch along the perimeter to collect any sheet flow from the adjacent slopes and convey it safely through the site. Additionally, the proposed project will install several storm drain culverts to manage runoff at this site, which will therefore improve the existing drainage patterns at this site. The addition of the engineered fill upon which the new reservoir will be placed, stabilized by the installation of the proposed retaining walls, will not result in a significant increase in runoff to this storm drain due to the downhill trajectory and capacity of the storm drain. The project will require the implementation of a SWPPP and hazardous material BMPs during construction, which will ensure that any potential discharge of polluted material does not occur or is remediated in the event of an accidental spill. Thus, the development of the project will not result in a significant impact pertaining to the construction of new or expansion of existing stormwater drainage facilities. Any impacts under this issue are considered less than significant. No mitigation is required.

Electric Power

No Impact – Development of the Vista Reservoir No. 2 Project would not require the installation of electrical services or additional energy beyond that which the site currently requires to operate. The proposed tank operates by gravity and is fed by an existing off-site booster station. The existing off-site booster will not be running more frequently to fill the new reservoir, with the exception of the energy required to facilitate the initial fill of water within the reservoir once in operation. The purpose of the proposed reservoir is for back up; as such, any time that it is used, it will be in place of the existing tank. Therefore, the required energy to operate the project represents a net zero increase. Additionally, the existing hydropneumatic station is only being relocated, it won't be expanded/up-sized, so no additional power consumption is forecast. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded electric power facilities. No impacts are anticipated.

Natural Gas

No Impact – Development of the Vista Reservoir No. 2 Project would not require installation of natural gas. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. No impacts are anticipated.

Telecommunications

No Impact – Development of the Vista Reservoir No. 2 Project would not require installation of wireless internet service or phone serve. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated.

- b. *Less Than Significant Impact* – Please refer to the discussion under X(b) and XIX(a) above. The proposed project will construct new water facilities—a new 300,000 gallon water storage reservoir—to store additional water within MSWD's jurisdiction and to allow existing water storage reservoirs to be taken out of service for maintenance when required. The construction and operation of the new water storage reservoir will not create a greater demand for water at this site than that which presently exists, as the reservoir will connect to the existing MSWD water distribution system and store water for future use. The new reservoir will allow better overall management of water distribution within the MSWD's service area. Thus, implementation of the proposed project will have access to sufficient water supplies available to serve the project from existing entitlements and resources. Any impacts under is issue is considered less than significant. No mitigation is required.

- c. *No Impact* – Please refer to the discussion under issues XIX(a). The proposed 300,000 gallon water storage reservoir will not generate any wastewater, as there are no connections to the wastewater treatment plant because no human occupied structures are proposed as part of this project. Therefore, implementation of the project will not create a demand for wastewater treatment services that would impact the provider’s ability to serve their existing commitments. No impacts are anticipated under this issue, and no mitigation is required.

- d&e. *Less Than Significant With Mitigation Incorporated* – The project is not anticipated to generate a large amount of waste as a result of construction or operation of the new 300,000-gallon reservoir. Any construction and demolition (C&D) waste will be recycled to the maximum extent feasible and any residual materials will be delivered to one of several C & D disposal sites in the area surrounding the project site. Many of these C&D materials can be reused or recycled, thus prolonging the supply of natural resources and potentially saving money in the process.

In accordance with CALGreen code 5.408.4, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing must be reused or recycled. As this is a mandatory requirement, no mitigation is required to ensure compliance by MSWD for this project.

While the existing hydropneumatic station and the electrical cabinet will require relocation, demolition is not anticipated to be required as part of the proposed project, construction waste reduction/diversion would be the focus of recycling/reuse. Because of increased construction recycling efforts resulting from CalGreen and other regulations, opportunities for construction recycling are becoming easier to find, such as one in Palm Desert that accepts a wide range of construction and demolition debris materials: asphalt, concrete, drywall, gravel, reusable/deconstructed material, pallets, sand, soil, and wood. There are additional facilities that accept C&D materials located in the surrounding areas⁷ including facilities in Coachella, Thousand Palms, Indio, Palm Springs, and Cathedral City that accept a wide range of materials including the following: appliances, cardboard, metals, wood, asphalt, concrete, soil, block rock, brick, carpet and padding, concrete with rebar, drywall, gravel, rock, roof tile, and tile.

The facilities that accept C&D materials, combined with the landfills in the surrounding area, have adequate capacity to serve the proposed project. Solid waste will be disposed of in accordance with existing regulations at an existing licensed landfill. The Lamb Canyon Sanitary Landfill and Badlands Landfill serve the project area. The Lamb Canyon Sanitary Landfill has a maximum permitted daily capacity of 5,500 tons per day, with a permitted capacity of 38,935,653 cubic yards (CY), with 19,242,950 CY of capacity remaining. The Badlands landfill has a maximum permitted daily capacity of 4,800 tons per day, with a permitted capacity of 34,400,000 CY, with 15,748,799 CY of capacity remaining. Both landfills permit thousands of tons of waste per day, which is beyond what the expected amount of waste would be generated by the proposed facilities during construction of the proposed reservoir. Furthermore, the proposed project is not anticipated to generate a substantial amount of operational waste as the project will only be visited on an as needed maintenance basis. Additionally, should the project require import or export of soil to accommodate the proposed retaining wall, all excavated soil would be hauled offsite by truck to an appropriately permitted solid waste facility. The daily amount of soil to be disposed per day would not exceed the maximum permitted throughput for each waste type (i.e., non-hazardous and hazardous). It is estimated that 15 CY trucks will be utilized to transport an export off site. For planning purposes, it is assumed that daily truck trips will be limited to 50 trucks per day and that a maximum of 75 miles per trip will occur. As such, the proposed project would comply with all federal, State, and local statutes related to solid waste disposal.

Any hazardous materials collected on the project site during either construction or operation of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. To further reduce potential impacts to solid waste facilities due to

⁷ http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf

the large scale of the materials that may require disposal or recycling, the following mitigation measure will be implemented:

UTIL-1 *The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to MSWD for review and approval prior to the start of demolition/construction activities to accomplish this objective.*

Therefore, with the above mitigation measure, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The proposed project is located adjacent to a High Fire Hazard Severity Zone in a State Responsibility Area (SRA), shown on Figure XX-1. Given that the project itself is not located within a very high fire hazard severity zone, it is not anticipated that this project will impair an adopted emergency response plan or emergency evacuation plan. Please review the discussion of wildfire under Subchapter IX, Hazards and Hazardous Materials. Within the proposed reservoir site, the proposed facilities are not anticipated to impair implementation of an adopted emergency response plan or emergency evacuation plan. Ingress and egress of maintenance trucks and construction vehicles would come from Valencia Drive, which is a residential street that terminates at/adjacent to the project site. The project site is located within a residential area with limited traffic in the vicinity of the project. The reservoir would be developed in such a way that emergency response would have access in the area around the new reservoir, should access be required. Therefore, the project will not substantially impair an adopted emergency response plan or emergency evacuation plan. Impacts under this issue are considered less than significant and no mitigation is required.

- b. *Less Than Significant Impact* – The proposed project includes the development of a new water storage reservoir at a site in which an existing water storage reservoir is located. The project does not propose any human occupancy structures or other structures that will place people on the site for long periods of time or pose a significant threat to people or property from wildfire risk. The project site is located adjacent to a hillside and therefore has a potential to be exposed to wildfire as there is not a significant amount of development located at this location. Because the proposed project would develop a water storage reservoir within a site containing an existing water storage reservoir, and because the provision of water storage is considered a benefit to the prevention of the spreading of wildfire in high risk areas, it is not anticipated that development at this site would expose occupants to pollutant concentrations from a wildfire. Therefore, given that the proposed project does not contain any human occupancy structures, it is not anticipated that the project would exacerbate fire risks thereby exposing project occupants to pollutant concentrations from a wildfire or uncontrolled spread of wildfire. Impacts under this issue are considered less than significant and no mitigation is required.

- c. *Less Than Significant Impact* – The proposed project is a water storage reservoir construction project on a site that currently contains an existing reservoir. The site does not contain vegetation or other fuel load that would exacerbate fire risk during construction at this site located adjacent to a high fire hazard zone. The project does not include any new uses, such as power lines, that would have a potential to result in random fire risk under accidental circumstances (such as a downed wire, etc.). As such, though the proposed project would construct a water storage reservoir, it is not anticipated that the construction of the reservoir at this site would exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Impacts under this issue are considered less than significant and no mitigation is required.

- d. *Less Than Significant With Mitigation Incorporated* – The project will install retaining walls to ensure that the adjacent hillside is stabilized. Onsite drainage within the site was recently discovered to flow across the reservoir site and onto adjacent southerly property rather flowing to the existing V-Ditch. The retaining walls will improve conditions by reducing the tributary area of surface flows to the reservoir. The proposed retaining wall will provide new drainage management through a concrete v-ditch along the perimeter to collect any sheet flow from the adjacent slopes and convey it safely through the site. Additionally, the proposed project will install several storm drain culverts to manage runoff at this site, which will therefore improve the existing drainage patterns at this site. The project would construct a retaining wall and recommended design measures, which would minimize downslope landslides as a result of post-fire slope instability. Furthermore, the project does not propose any habitable structures and thus the exposure of persons to such an event is minimal. As stated under the Hydrology Subchapter, flood risks at the project site are minimal, and therefore downslope flooding is not anticipated to occur as a result of post-fire slope instability or drainage changes. Additionally, with implementation of specific measures outlined in the geotechnical study (enforced by MMs **GEO-1** and **GEO-4**), the project would construct a retaining wall and recommended design measures, which would minimize downslope landslides as a result of post-fire slope instability. Based on the discussion above, with MMs **GEO-1** and **GEO-4**, the project would have a less than significant potential to expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control certain potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis contained within this Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized following this section.

- a. *Less Than Significant With Mitigation Incorporated* – The project has no potential to cause a significant impact on any biological or cultural resources. The project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce 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, or reduce the number or restrict the range of a rare or endangered plant or animal. The project requires mitigation to prevent significant impacts from occurring as a result of implementation of the project. Based on the historic disturbance of the site, and its current disturbed condition, the potential for impacting cultural resources is low. The Cultural Resources Report determined that no cultural resources of importance were found at the project site, so it is not anticipated that any resources could be affected by the project because no cultural resources exist. However, because it is not known what could be accidentally unearthed upon any excavation activities, contingency mitigation measures are provided to ensure that, in the unlikely event that any resources are found, they are protected from any potential impacts. Please see biological and cultural sections of this Initial Study.
- b. *Less Than Significant With Mitigation Incorporated* – Based on the analysis in this Initial Study, the proposed Vista Reservoir No. 2 Project has the potential to cause impacts that are individually or cumulatively considerable. There are no other projects in the vicinity to which this project would make a cumulatively considerable impact, furthermore the provision of water storage is generally viewed as a benefit to the community. The issues of Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Tribal

Cultural Resources, Utilities and Service Systems, and Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, less than significant impacts.

- c. *Less Than Significant With Mitigation Incorporated* – The proposed project includes activities that have a potential to cause direct substantial adverse effects on humans. The issues of Air Quality, Geology and Soils, Hazards and Hazardous Materials, Noise, and Wildfire require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant with mitigation.

Conclusion

This document evaluated all CEQA issues contained in the current Initial Study Checklist Form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agricultural and Forestry Resources, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, Recreation, and Transportation. The issues of Aesthetics, Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Tribal Cultural Resources, Utilities and Service Systems, Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact.

Based on the findings in this Initial Study, the MSWD proposes to adopt a Mitigated Negative Declaration (MND) for the Mission Springs Water District Vista Reservoir No. 2 Project. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) will be issued for this project by the MSWD. The Initial Study and NOI will be circulated for 30 days of public comment. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed by MSWD for possible adoption at a future Board meeting, the date for which has yet to be determined. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting dates in accordance with the requirements in Section 21092.5 of CEQA (statute).

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised 2019
Authority: Public Resources Code sections 21083 and 21083.09
Reference: Public Resources Code sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3/ 21084.2 and 21084.3

SUMMARY OF MITIGATION MEASURES

Air Quality

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- Apply soil stabilizers to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Apply water to disturbed surfaces and haul roads 3 times/day.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.
- Identify proper compaction for backfilled soils in construction specifications.

This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.

AIR-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.
- Contactors shall utilize Tier 4 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

Biological Resources

BIO-1 Preconstruction presence/absence surveys for burrowing owl shall be conducted no less than 14 days prior to any onsite ground disturbing activity by a qualified biologist. The burrowing owl surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife in the "California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation." In the event this species is not identified within the Project limits, no further mitigation is required, and a letter shall be prepared by the qualified biologist documenting the results of the survey. The letter shall be submitted to CDFW prior to commencement of Project activities. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.

BIO-2 If burrowing owls are identified during the survey period, the District shall take the following actions to offset impacts prior to ground disturbance:

Active nests within the areas scheduled for disturbance or degradation shall be avoided until fledging has occurred, as confirmed by a qualified biologist. Following fledging, owls may be passively relocated by a qualified biologist, as described below.

If impacts on occupied burrows are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows provided by the District outside of the impact area.

If relocation of the owls is approved for the site by CDFW, CDFW shall require the District to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the CDFW for review/approval prior to the commencement of disturbance activities onsite.

The relocation plan must include all of the following and as indicated in Appendix E:

- The location of the nest and owls proposed for relocation.
- The location of the proposed relocation site.
- The number of owls involved and the time of year when the relocation is proposed to take place.
- The name and credentials of the biologist who will be retained to supervise the relocation.
- The proposed method of capture and transport for the owls to the new site.
- A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).

The applicant shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing Project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.

Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the District. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.

A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.

- BIO-3 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

Cultural Resources

- CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.
- CUL-2 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the

County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Geology and Soils

- GEO-1 Based upon the geotechnical investigation (Appendix 4 of this document), all of the recommended seismic design measures identified in Appendix 4 (listed on pages 7-17) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including seismic related hazards on the proposed water storage reservoir.
- GEO-2 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup such that erosion does not occur.
- GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the 100,000-gallon replacement reservoir with associated water improvements is being constructed.
- GEO-4 Based upon the geotechnical investigation (Appendix 4 of this document), all of the recommended design measures identified in Appendix 4 (listed on pages 7-17) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site.
- GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with MSWD's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.

Hazards and Hazardous Materials

- HAZ-1 Prior to and during grading and construction, should an accidental release of a hazardous material occur, the following actions will be implemented: construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be notified; immediate actions will be implemented to limit the volume and area impacted by the contaminant; the contaminated material, primarily soil, shall be collected and removed to a location where it can be treated or disposed of in accordance with the regulations in place at the time of the event; any transport of hazardous waste from the property shall be carried out by a registered hazardous waste transporter; and testing shall be conducted to verify that any residual concentrations of the accidentally released material are below the regulatory remediation goal at the time of the event. All of the above sampling or remediation activities related to the contamination will be conducted under the oversight of City Building & Safety Department, and Riverside County Site Cleanup Program. All of the above actions shall be documented and made available to the appropriate regulatory agencies prior to closure (a determination of the regulatory agency that a site has been remediated to a threshold that poses no hazard to humans) of the contaminated area.

Hydrology and Water Quality

- HYD-1 MSWD shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will

prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:

- The use of silt fences;
- The use of temporary stormwater desilting or retention basins;
- The use of water bars to reduce the velocity of stormwater runoff;
- The use of wheel washers on construction equipment leaving the site;
- The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;
- The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and
- Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.

Noise

- NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.
- NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.
- NOI-3 No construction activities shall occur during the hours of 5 PM through 7 AM, Monday through Saturday; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.
- NOI-4 Equipment not in use for five minutes shall be shut off.
- NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.
- NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.
- NOI-7 MSWD will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by MSWD.
- NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, as determined by MSWD.
- NOI-9 MSWD shall require the construction contractor(s) to implement the following measures:
 - Ensure that the operation of construction equipment that generates high levels of vibration including, but not limited to, large bulldozers, loaded trucks, pile-drivers, vibratory compactors, and drilling rigs, is minimized to below 72 vibration decibels (VdB), within 45 feet of existing residential structures and 35 feet of institutional structures (e.g., schools) during construction. Use of small rubber-tired bulldozers shall be enforced within these areas during grading operations to reduce vibration effects.
 - The construction contractor shall provide signs along the roadway identifying a phone number for adjacent property owners to contact with any complaint. During future construction activities with heavy equipment within 300 feet of occupied residences, vibration

field tests shall be conducted at the property line near the nearest occupied residences., If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold. These measures may include, but are not limited to the following: use different construction methods, slow down construction activity, or other mitigating measures to reduce vibration at the property from where the complaint was received.

Utilities and Service Systems

UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to MSWD for review and approval prior to the start of demolition/construction activities to accomplish this objective.

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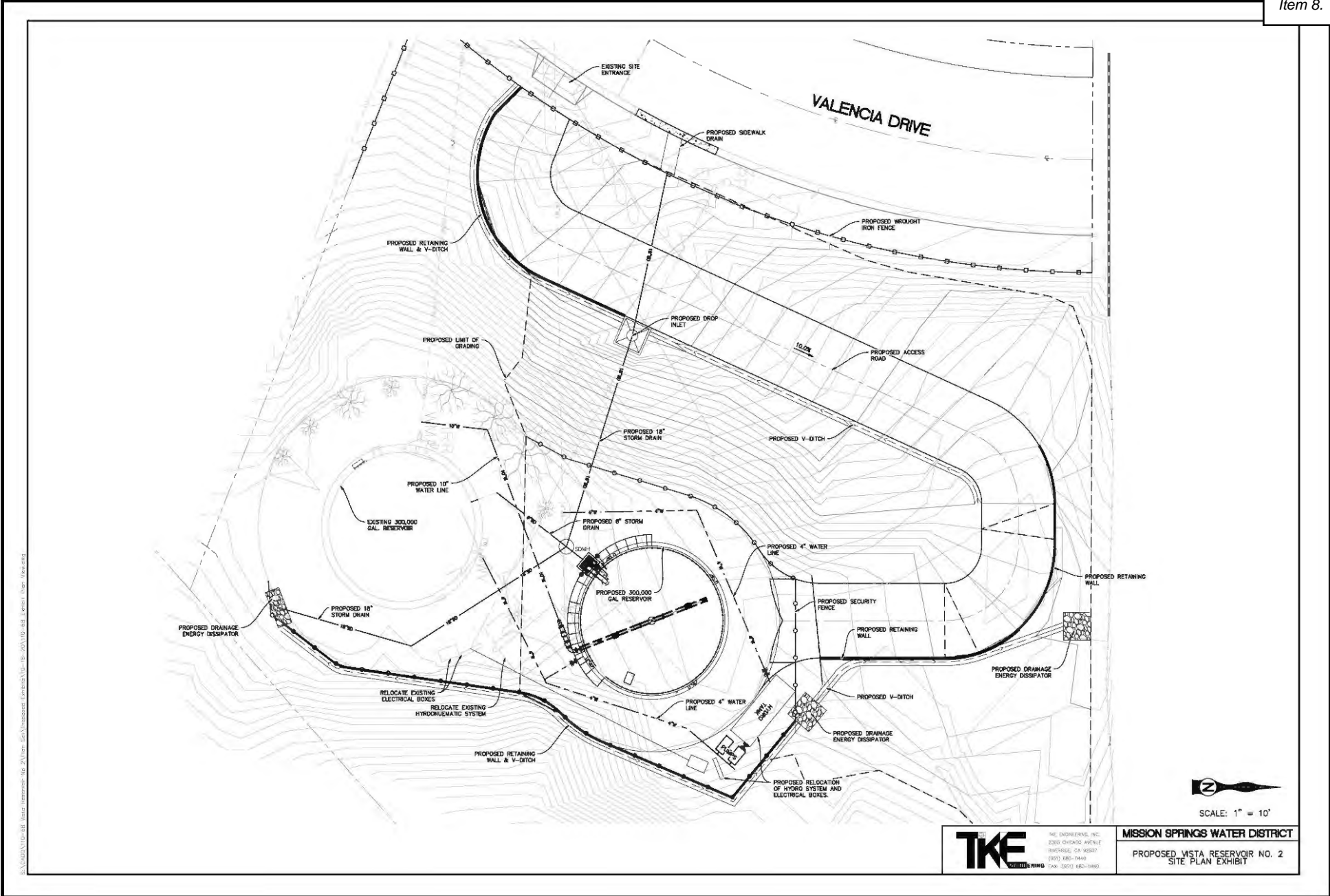
FIGURES



FIGURE 1



FIGURE 2



SOURCE: TKE Engineering

FIGURE 3

Tom Dodson & Associates
Environmental Consultants

Site Plan

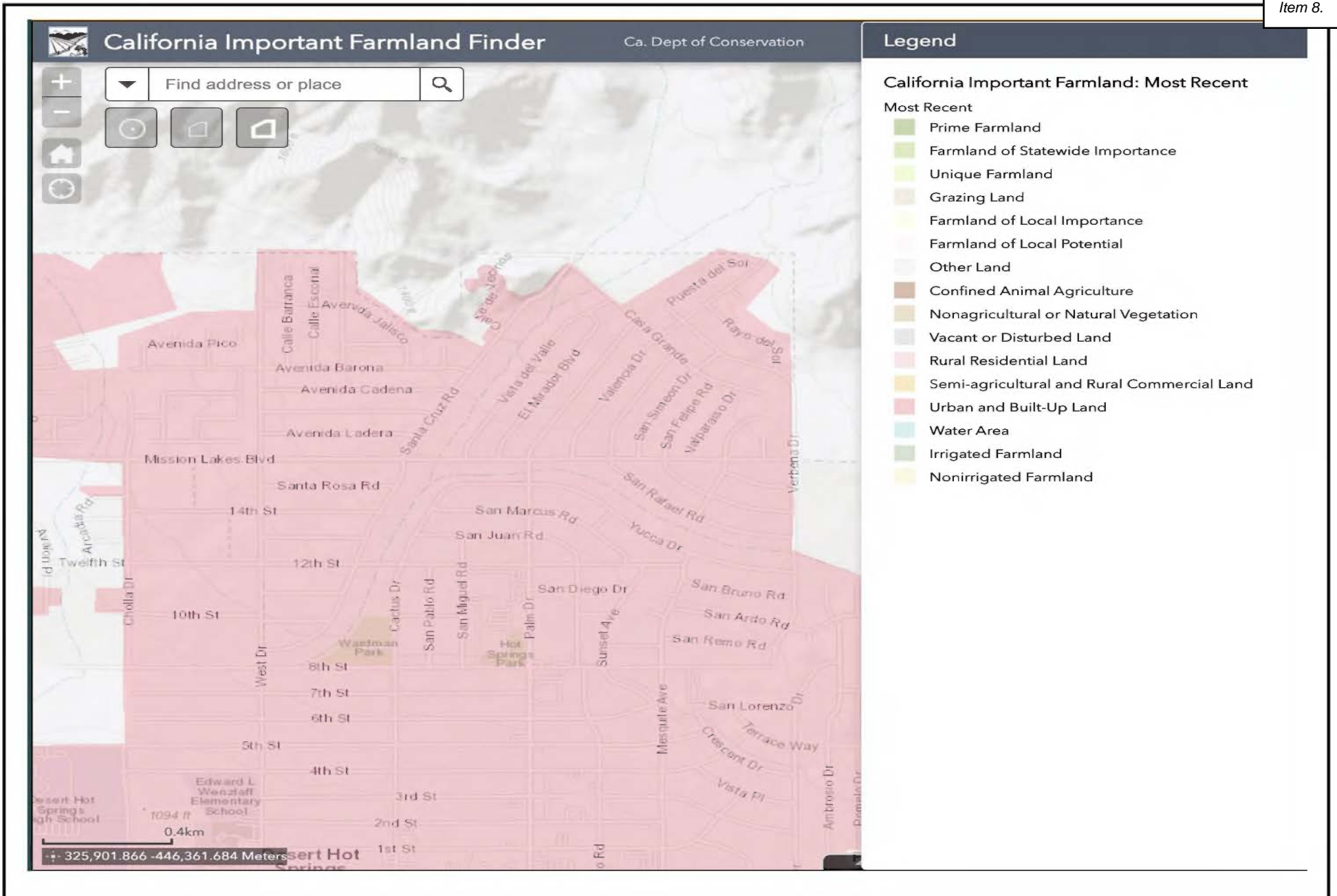
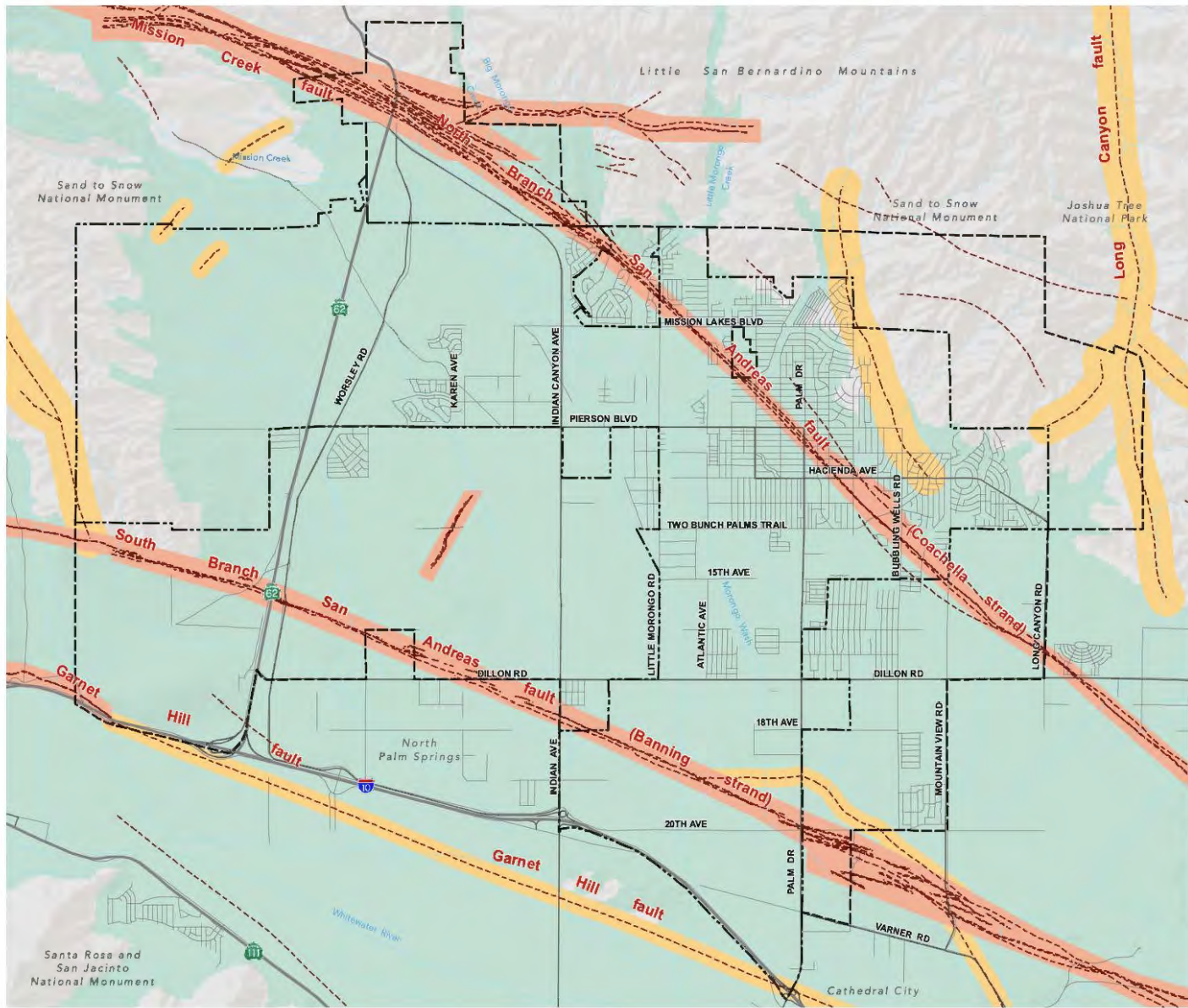


FIGURE II-1

DESERT HOT SPRINGS GENERAL PLAN
**Figure SN-3:
Seismic Hazards**



- Seismic Hazards**
- Faults
 - Light Blue Liquefaction
- Fault Zones**
- Yellow Riverside County Designated Fault Zone
 - Orange Alquist Priolo Fault Zone
- Base Map Features**
- City Boundary
 - Sphere of Influence
 - Blue Water Courses

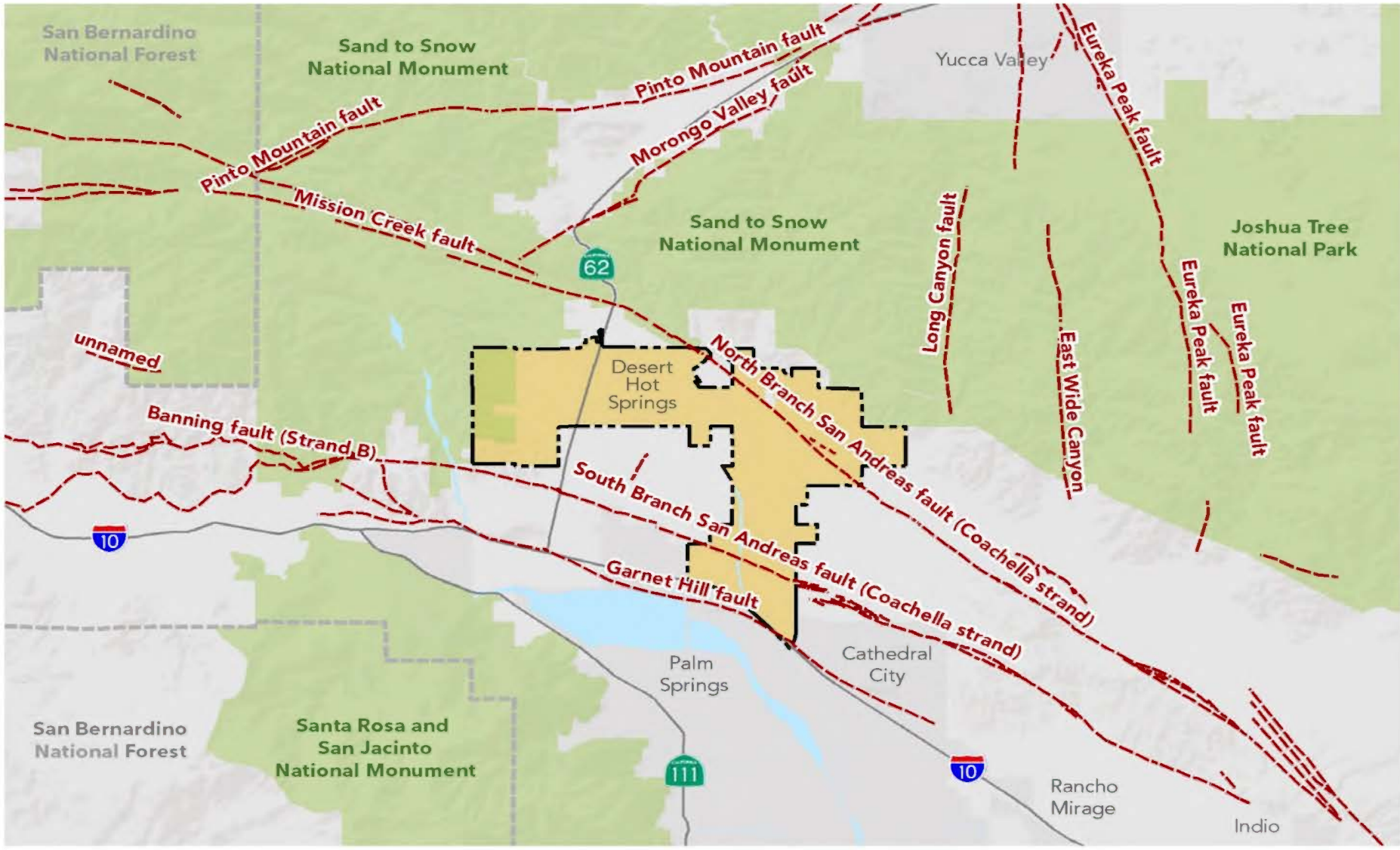
Source: City Of Desert Hot Springs and Riverside County.
Date: January 2019.



SOURCE: City of Desert Hot Springs General Plan

FIGURE VII-1

SN-2: Regional Faults



SOURCE: City of Desert Hot Springs General Plan

FIGURE VII-2

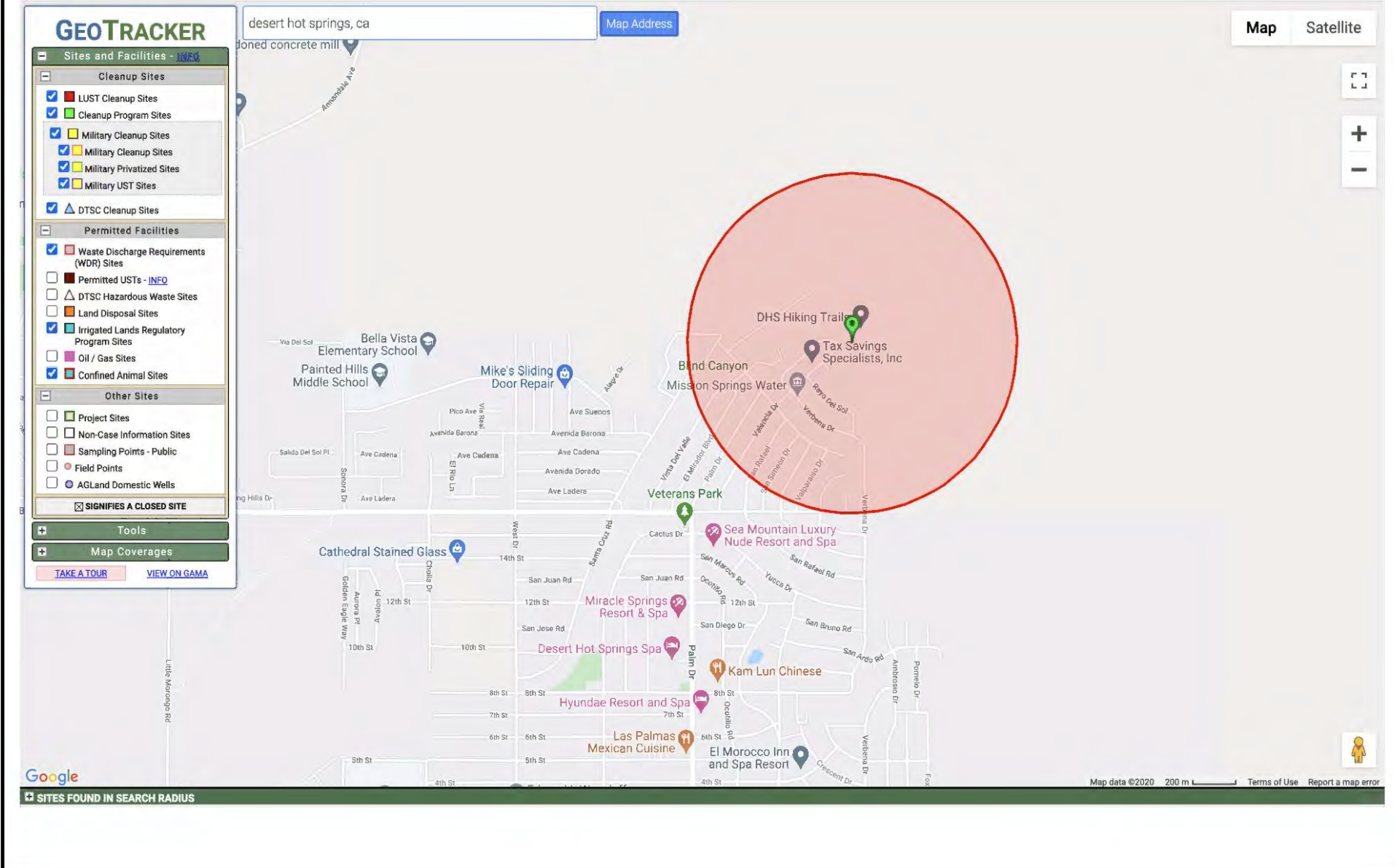
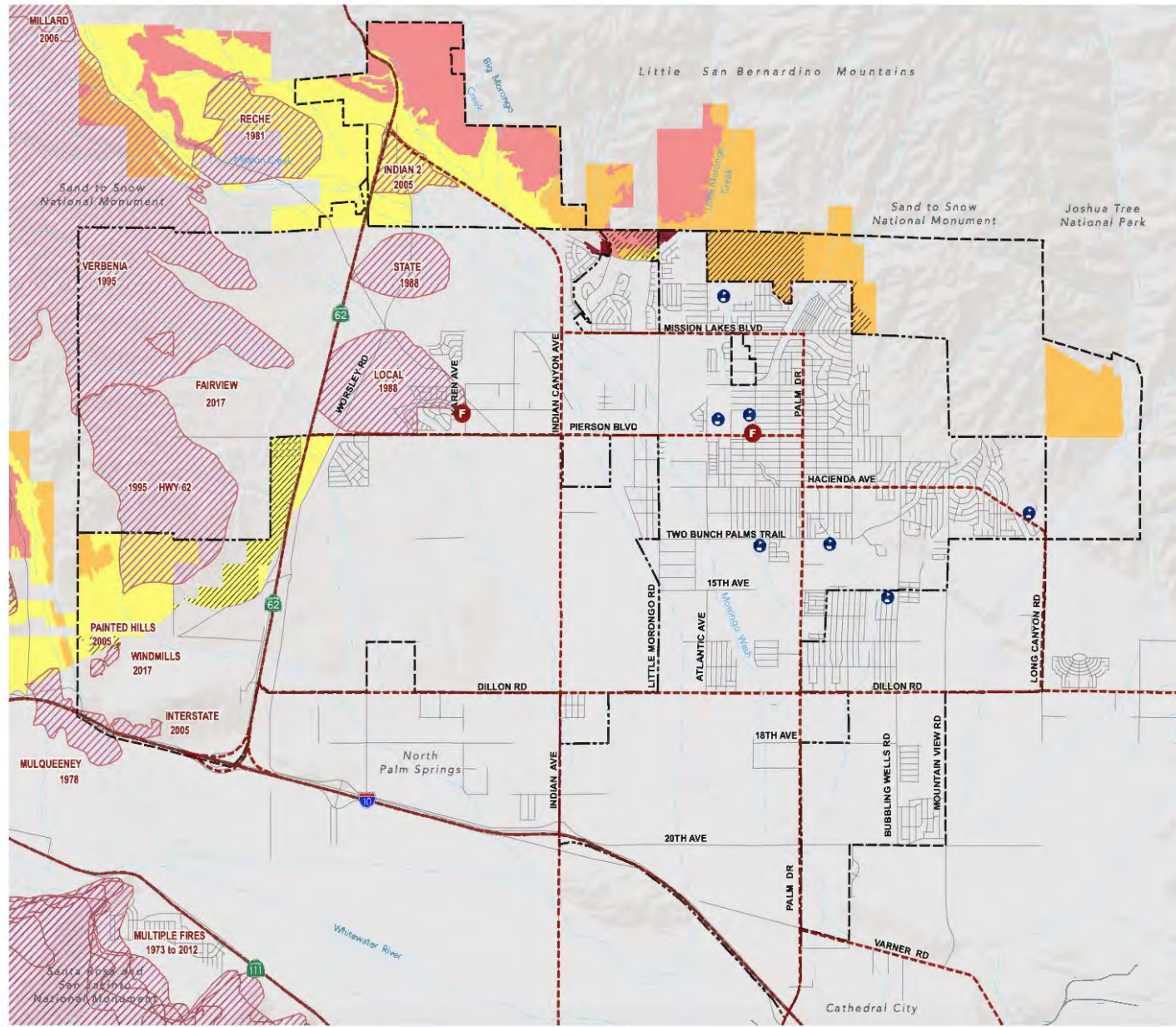


FIGURE IX-1

DESERT HOT SPRINGS GENERAL PLAN
**Figure SN-5:
Wildfire Hazards**



Fire Hazard Severity Zones (State Responsibility Areas)
 Very High
 High
 Moderate

Fire Hazard Severity Zones (Local Responsibility Areas)
 Very High
 Historic Fire Perimeters (1973 to 2017)
 Evacuation Routes
 Riverside County Fire Stations
 Existing and Planned Residential Development in Local and State Responsibility Areas

Base Map Features
 City Boundary
 Sphere of Influence
 Water Courses
 Public Schools

Source: CAL FIRE's Fire and Resource Assessment Program, 2009 and Riverside County GIS (accessed August 2019.)

Date: August 2019

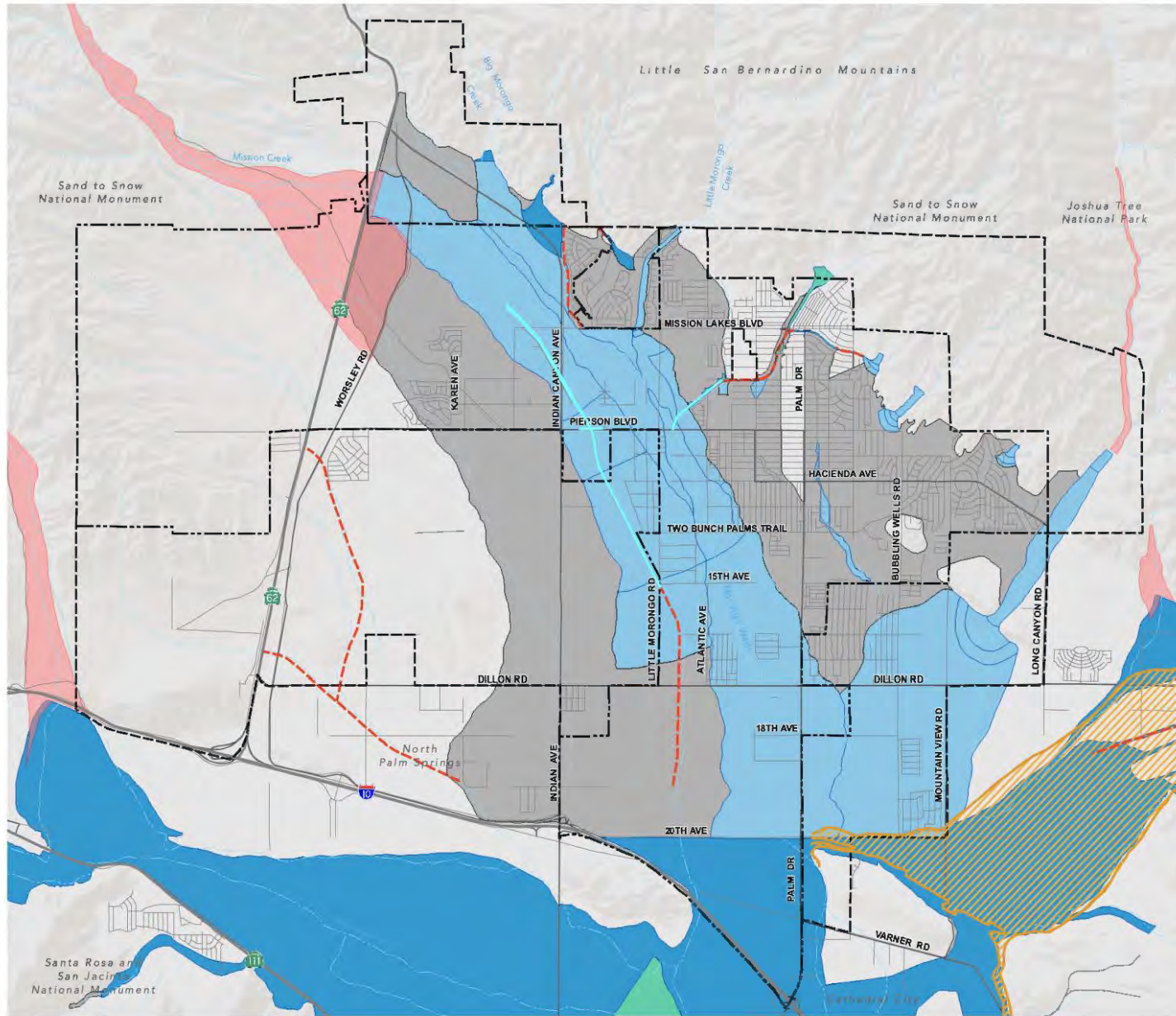


SOURCE: City of Desert Hot Springs General Plan

FIGURE IX-2

DESERT HOT SPRINGS GENERAL PLAN

Figure SN-4: Flood Hazards



FEMA Flood Zones

Special Flood Hazard Areas Subject To Inundation by the One Percent Annual Chance Flood

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard include Zones A, E, and AO. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- Zone A No Base Flood Elevations determined.
- Zone AE Base Flood Elevations determined.
- Zone AO Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

Other Flood Areas

- Zone X Areas of 0.2% annual chance flood (500-year flood); and areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

Awareness Floodplain Boundary (approximate)

Dam Inundation

Wide Canyon Dam Inundation Area

Flood Control Channels and Facilities

Riverside County Flood Control Facilities

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

January 2019.

Source: Federal Emergency Management Agency (FEMA), August 2018.
 National Flood Hazards Layer (NFHL), FEMA Map Service Center: Web Page, <<http://msc.fema.gov>>
 California Department of Water Resources, 2018. Awareness Floodplain Mapping Boundaries - Riverside County: Web Page, <http://www.water.ca.gov/floodmgmt/lra/fmo/fmb/fes/awareness_floodplain_maps>
 California Department of Water Resources, Office of Emergency Services, 1958. Dam Inundation Areas, 2009.

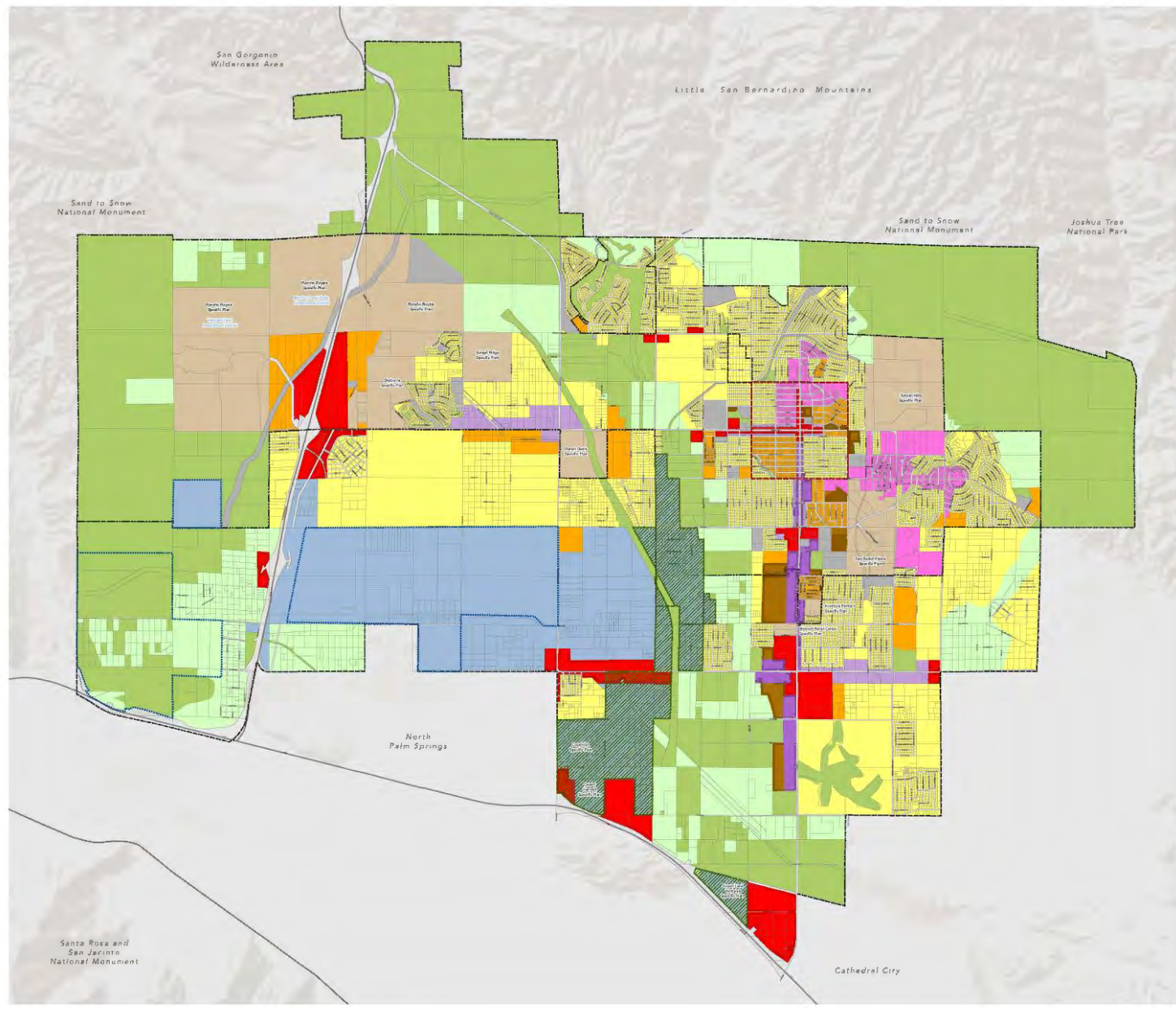


SOURCE: City of Desert Hot Springs General Plan

FIGURE X-1



City of Desert Hot Springs Land Use Policy Plan

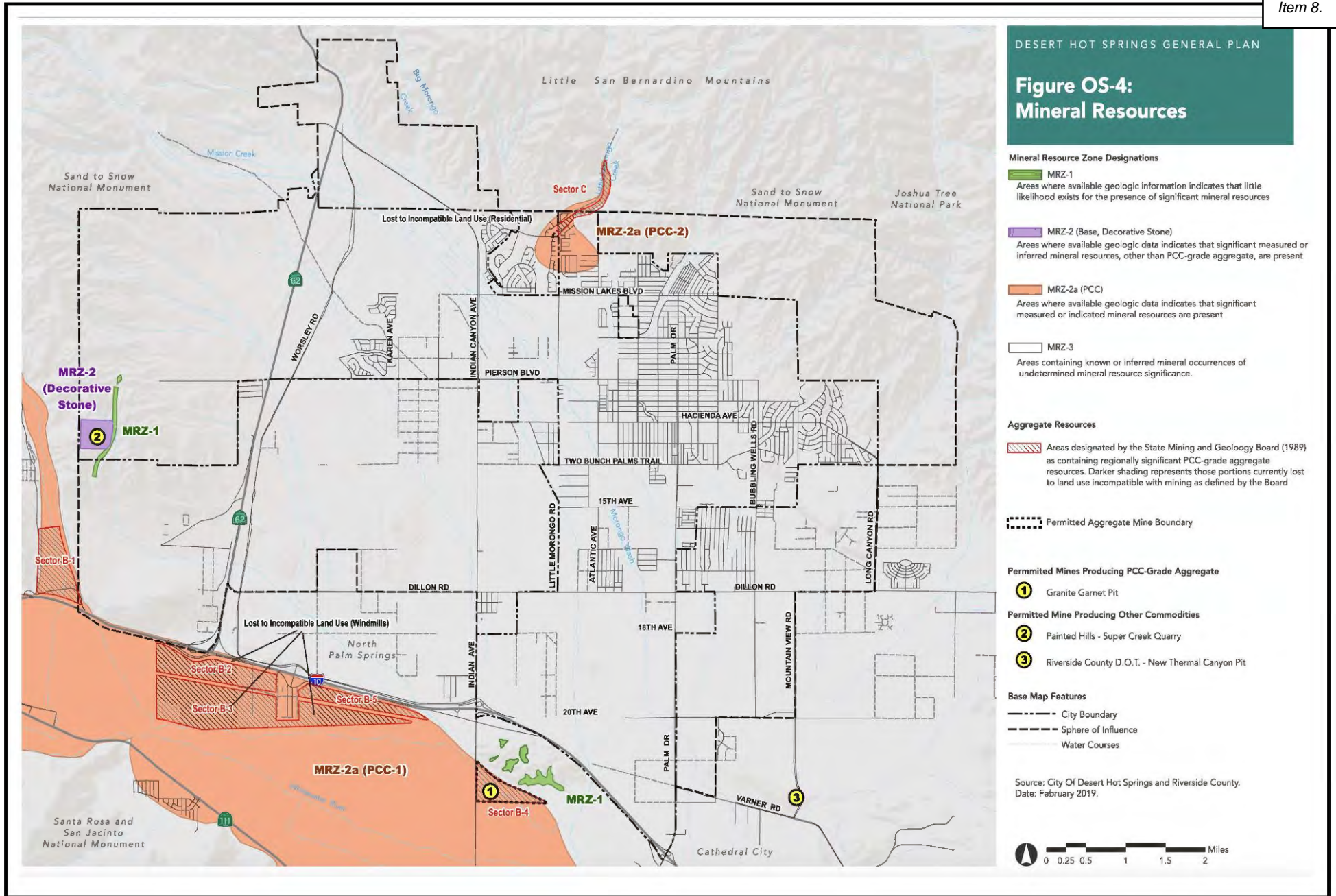


- Land Use Designations**
- R-RD: Residential Rural Desert (1 DU/5 AC)
 - R-L: Residential Low (Up to 6.0 DU/AC)
 - R-M: Residential Medium (Up to 20.0 DU/AC)
 - R-H: Residential High (20.0 to 30.0 DU/AC)
 - C: Commercial (0.30 FAR)
 - V-S: Visitor-Serving
 - MU-N: Mixed-Use Neighborhood (15 DU/AC)
 - MU-C: Mixed-Use Corridor (20.0 to 30.0 DU/AC)
 - I: Industrial (0.60 FAR)
 - OS: Open Space
 - P: Public/Institutional
 - SP: Specific Plan
- Overlays**
- Arts and Culture Overlay
 - Industrial Cannabis Overlay
 - Energy Overlay
- Base Map Features**
- City Boundary
 - Sphere of Influence

Sources: City of Desert Hot Springs, 2020.
Date: June 11, 2020.

SOURCE: City of Desert Hot Springs General Plan

FIGURE XI-1



SOURCE: City of Desert Hot Springs General Plan

FIGURE XII-1

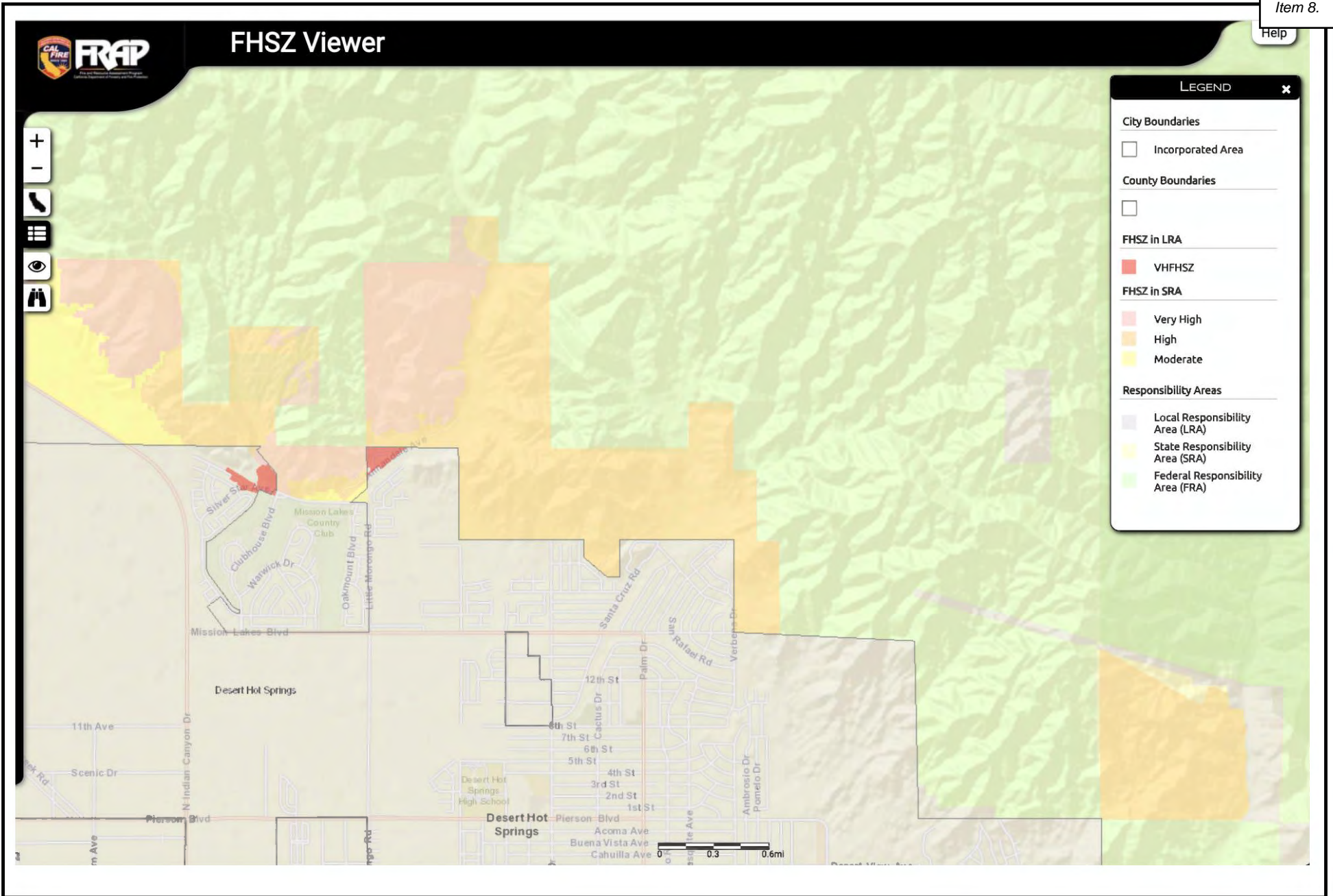


FIGURE XX-1

APPENDIX 1

AIR QUALITY and GHG IMPACT ANALYSES

**TKE-075
MISSION SPRINGS WATER DISTRICT
VISTA RESERVOIR PROJECT**

DESERT HOT SPRINGS, CALIFORNIA

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Date:

September 22, 2020

Project No.: P20-017 AQ

ATMOSPHERIC SETTING

The proposed project site is in the Coachella Valley Planning Area (CVPA) of the Salton Sea Air Basin (SSAB). The SSAB was part of the Southeast Desert Air Basin (SEDAB) until May, 1996 when the SSAB was created. The project site is in the hottest and driest parts of California. The climate is characterized by hot, dry summers and relatively mild winters. Rainfall is scant in all seasons, so differences between the seasons are characterized principally by differences in temperature. Average annual precipitation in the air basin ranges from 2 to 6 inches per year.

Seasonal temperature differences in the basin are large, confirming the absence of marine influences due to the blocking action of the mountains to the west. Average monthly maximum temperatures in the project vicinity range from 108°F in July to 57°F in January. The average monthly minima range from about 40°F in January to about 80°F in July.

During much of the year, California is covered by a moderately intense high-pressure system. In winter, the Pacific High retreats to the south, so that frontal systems from the North Pacific can move onto the California coast. On average, 20 to 30 frontal systems pass through California each winter. The first front usually arrives around the middle of October, and the average period of frontal activity is five to six months. Most of these systems are relatively weak by the time they reach the SSAB, however, and they become more diffuse as they move southeastward.

Spring is a transition season between the winter period of frontal activity and the generally dry summer; some precipitation continues during the early part of the season.

During the summer, the Pacific High is well developed to the west of California, and a thermal trough overlies the SSAB. The intensity and orientation of the trough varies from day to day. Although the rugged mountainous country prevents a normal circulation, the influence of this trough does permit some inter-basin exchange with coastal locations through the passes. Summer is also the season with occasional moisture influx from the Gulfs of Mexico or California which causes isolated thundershowers and flash flooding (the summer "monsoon").

Fall is the transition period from the hot summer back to the season of frontal activity, but it is still very dry and temperatures are still mild.

Desert regions tend to be windy, since little friction is generated between the moving air and the low, sparse vegetation cover. In addition, the rapid daytime heating of the lower air over the desert leads to strong convection activity. This exchange of lower and upper air accelerates surface winds during the warm part of the day when convection is at a maximum. During winter, however, the rapid cooling in the surface layers at night retards this exchange of momentum, and the result is often a high frequency of nearly calm winds, especially at night.

During all seasons, the prevailing wind direction is predominantly from the west to east. Banning Pass is an area where air is squeezed through a narrow opening with accelerated airflow that supports wind farms. The strong winds also occasionally lead to blowing sand that sandblasts painted surfaces and makes driving unsafe. As the west to east winds fan out into the Coachella

Valley, they slow down quickly. By the time the onshore flow reaches the project site, it has again returned to its normal speed.

The mixing depth, i.e., the height available for dispersion of airborne pollutants emitted near the surface, is limited by the occurrence of temperature inversions. A temperature inversion is a layer of air in which the temperature increases with height. The temperature inversion conditions of the SSAB are quite different from those of the coastal regions of California. In coastal environments, warm, subsiding air aloft creates a lid above the shallow marine layer at the surface. The base of this subsidence inversion is perhaps 1,500 feet above the surface in coastal portions of the Los Angeles Basin. When a subsidence inversion exists over the desert, the height of the inversion base lies some 6,000 to 8,000 feet above the surface.

Nighttime surface inversions in the desert are common, especially during the cooler months. Mixing heights are predominantly 1,000 feet or less. These inversions are caused by nighttime radiational cooling of the land surface in contact with overlying air that cools more slowly. They tend to be destroyed early in the day in summer, due to intense solar radiation and heating of the land surface. In winter, however, these radiation inversions tend to persist until mid-morning, limiting mixing in the lower atmosphere to heights of 200 to 2,000 feet above the surface. Nuisance air quality problems in the Coachella Valley, such as dust near mining operations or odors near feedlots or wastewater plants, occur mainly late at night or early in the morning when such radiation inversions are strongest.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.19 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (666 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	<ul style="list-style-type: none"> • Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter. 	<ul style="list-style-type: none"> • Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> • Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions. 	<ul style="list-style-type: none"> • Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O ₃)	<ul style="list-style-type: none"> • Atmospheric reaction of organic gases with nitrogen oxides in sunlight. 	<ul style="list-style-type: none"> • Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	<ul style="list-style-type: none"> • Contaminated soil. 	<ul style="list-style-type: none"> • Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	<ul style="list-style-type: none"> • Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions. 	<ul style="list-style-type: none"> • Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> • Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NO_x, sulfur oxides, and organics. 	<ul style="list-style-type: none"> • Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> • Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes. 	<ul style="list-style-type: none"> • Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide (NO₂) that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO₂ standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 µg/m³ to 12 µg/m³ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm which matches the current California standard. It will require three years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

In 2010 a new federal one-hour primary standard for nitrogen dioxide (NO₂) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO₂) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO₂ is typically not a problem pollutant.

BASELINE AIR QUALITY

In the CVPA portion of the SSAB, air quality planning, enforcement and monitoring responsibilities are carried out by the South Coast Air Quality Management District (SCAQMD). Existing and probable future levels of air quality around the project area can be best inferred from ambient air quality measurements conducted by the SCAQMD at the Indio and Palm Springs air quality monitoring stations. In Indio, ozone and 10 microns or less in diameter, (respirable) particulates called PM-10, are monitored. These two pollutants are the main air pollution problems in the CVPA portion of the SSAB. Vehicular pollution levels such as carbon monoxide (CO) and nitrogen dioxide (NO₂) are monitored at Palm Springs. Levels of CO and NO₂ at the project site are likely lower than those monitored in Palm Springs. However, because CO and NO₂ levels in Palm Springs are well within acceptable limits, their use to characterize the project site introduces no complications. The last four years of published data from Indio and Palm Springs stations are summarized in Table 3. The following conclusions can be drawn from this data:

Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated less than one percent of all days in the last four years near Indio. The 8-hour state ozone standard has been exceeded an average of 11 percent of all days per year in the same time. The Federal eight-hour ozone standard is violated on around eight percent of all days per year. Ozone levels are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

Carbon monoxide (CO) measurements near the project site have declined throughout the last decade, and 8-hour CO levels were at their lowest in 2017. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum CO levels at the closest air monitoring station are less than 25 percent of their most stringent standards because of continued vehicular improvements.

PM-10 levels as measured at Indio, have exceeded the state 24-hour standard on 12 percent of all measurement days in the last four years, but the national 24-hour particulate standard has not been exceeded during the same period. The state standard is considerably more restrictive.

A fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There have no violations of the 24-hour federal PM-2.5 standard in recent years. With dustier conditions along the I-10 Corridor, there may be occasional violations of PM-2.5 standards at the project site.

Table 3
Air Quality Monitoring Summary
(Days Standards Were Exceeded and Maximum Observed Concentrations 2016-2019)

Pollutant/Standard	2016	2017	2018	2019
Ozone ^a				
1-Hour > 0.09 ppm (S)	2	8	4	4
8-Hour > 0.07 ppm (S)	27	44	49	43
8- Hour > 0.075 ppm (F)	12	27	28	43
Max. 1-Hour Conc. (ppm)	0.099	0.107	0.106	0.103
Max. 8-Hour Conc. (ppm)	0.089	0.093	0.091	0.087
Carbon Monoxide ^b				
1-hour > 20. ppm (S)	0	0	0	0
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.5	0.5	1.1	0.7
Nitrogen Dioxide ^b				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max 1-hour Conc. (ppm)	0.04	0.04	0.04	0.04
Respirable Particulates (PM-10) ^a				
24-hour > 50 µg/m ³ (S)	56/313	43/363	43/353	27/361
24-hour > 150 µg/m ³ (F)	0/313	0/363	0/363	0/361
Max. 24-Hr. Conc. (µg/m ³)	137.	128.	146.	41.
Ultra-Fine Particulates (PM-2.5) ^a				
24-Hour > 35 µg/m ³ (F)	0/115	0/110	0/122	0/118
Max. 24-Hr. Conc. (µg/m ³)	25.8	18.8	28.7	15.0

(S) = state standard, (F) = federal standard

^aData from Indio monitoring station.

^bData from Palm Springs air monitoring station.

Source: SCAQMD Air Monitoring Summaries.

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NO_x) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NO_x and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

Table 4
South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2015^a	2020^b	2025^b	2030^b
NOx	357	289	266	257
VOC	400	393	393	391
PM-10	161	165	170	172
PM-2.5	67	68	70	71

^a2015 Base Year.

^bWith current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, 2013 Almanac of Air Quality

In other air quality attainment plan reviews, EPA had disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relied on PM-2.5 control regulations that had not yet been approved or implemented. It was expected that a number of rules that were pending approval would remove the identified deficiencies. If these issues were not resolved within the next several years, federal funding sanctions for transportation projects could result. The 2012 AQMP included in the current California State Implementation Plan (SIP) was expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked almost ten years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long since revoked one-hour federal ozone standard. Because the current SIP for the basin contains a number of control measures for the 8-hour ozone standard that are equally effective for one-hour levels, the 2012 AQMP was believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board in March, 2017, and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NOx, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 µg/m ³)	2025
8-hour ozone (75 ppb)	2024 (old standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)

24-hour PM-2.5 (35 $\mu\text{g}/\text{m}^3$) 2019

The key challenge is that NO_x emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NO_x control measures are adopted and implemented, ozone attainment goals may not be met.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing water infrastructure projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

STANDARDS OF SIGNIFICANCE

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects in the Coachella Valley

portion of the SCAQMD with daily emissions that exceed any of the following emission thresholds are to be considered significant under CEQA guidelines.

Table 5
Daily Emissions Thresholds

Pollutant	Construction¹	Operations²
ROG	75	75
NO _x	100	100
CO	550	550
PM-10	150	150
PM-2.5	55	55
SO _x	150	150
Lead	3	3

¹ Construction thresholds apply to both the SCAB and the Coachella Valley (Salton Sea and Mojave Desert Air Basins).

² For Coachella Valley the mass daily emissions thresholds for operation are the same as the construction daily emissions thresholds.

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

SENSITIVE USES

There are single family residential uses to the south and southwest of the proposed reservoir site. These homes are accessed via Puesta Del Sol and Valencia Drive. The closest sensitive use is approximately 175 feet to the south and 350 feet to the southwest.

CONSTRUCTION ACTIVITY IMPACTS

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The proposed project includes a new 300,000-gallon reservoir approximately 30' northwest of the existing reservoir. Construction is anticipated to require 6 months and will start in the first quarter of 2021. Estimated construction emissions were modeled using CalEEMod2016.3.2 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled using default construction equipment and schedule for a project of this size using input from the project engineer as shown in Table 6.

Table 6
Construction Activity Equipment Fleet

Phase Name and Duration	Equipment
Clear and Grub (2 days)	2 Bobcats
Earthworks (10 days)	2 Bobcats
	2 Loader/Backhoes
Storm Drain and Culverts (10 days)	2 Bobcats
	1 Loader/Backhoe
Foundation (10 days)	1 Pump
	1 Mixer
	2 Bobcats
	1 Loader/Backhoe
Tank Construction (3 months)	1 Crane
	1 Aerial Lift
	1 Forklift
	1 Generator Set
	2 Air Compressors
	1 Loader/Backhoe
Equipment Install (1 month)	1 Crane
	1 Loader/Backhoe
	1 Generator Set
	1 Forklift
	3 Welders
Finish Work (10 days)	1 Paver
	1 Roller
	1 Compactor

*bobcats modeled as skid steer loaders

Utilizing this indicated equipment fleet and durations shown in Table 6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table 7.

Table 7
Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Maximal Construction Emissions	ROG	NO_x	CO	SO₂	PM-10	PM-2.5
2021	1.9	13.8	13.3	0.0	6.0	3.1
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds without the need for added mitigation.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure.

LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board’s Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD’s Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project, the closest receptor is 175 feet from the site and therefore the 50-meter distance was used.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites for varying distances. For this site (1.2 acres), the most stringent thresholds for a one-acre site were utilized.

The following thresholds and emissions in Table 8 are therefore determined (pounds per day):

**Table 8
LST and Project Emissions (pounds/day)**

LST Coachella Valley	CO	NOx	PM-10	PM-2.5
LST Threshold	1,387	166	13	5
Max On-Site Emissions	13	14	6	3

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in Table 8, LST impacts are less-than-significant.

OPERATIONAL IMPACTS

The project will not require additional operational energy. The proposed tank operates by gravity and is fed by an existing off-site booster station. The existing booster will not be running more frequently to fill the new reservoir (only once for the initial filling). The second tank is for back up and is used in place of the existing tank, for a net zero energy increase. The existing hydropneumatic station is being relocated not expanded or up-sized.

CONSTRUCTION EMISSIONS MINIMIZATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. Recommended measures include:

Fugitive Dust Control

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NO_x) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better rated heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

GREENHOUSE GAS EMISSIONS

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” These greenhouse gases contribute to an increase in the temperature of the earth’s atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statutes and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been

developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

THRESHOLDS OF SIGNIFICANCE

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to “select the model or methodology it considers most appropriate.” The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have enough expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for all land use projects where the SCAQMD is the lead agency of 3,000 Metric Tons (MT) CO₂ equivalent/year.

PROJECT RELATED GHG EMISSIONS GENERATION

Construction Activity GHG Emissions

The project is assumed to require less than one year for construction. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO₂e emissions identified in Table 9.

Table 9
Construction Emissions (Metric Tons CO₂e)

	CO ₂ e
Year 2021	96.1
Amortized	3.2

CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

Consistency with GHG Plans, Programs and Policies

The City of Desert Hot Springs adopted an Initial Study, Negative Declaration for a Climate Action Plan in 2013. The plan identifies 80 specific actions to reduce GHG emissions. However, the proposed project is GHG neutral and will not increase electrical consumption or require additional personnel or maintenance.

Since the project results in GHG emissions below the recommended SCAQMD 3,000 metric ton threshold for any land use project, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

CALEEMOD2016.3.2 COMPUTER MODEL OUTPUT

- DAILY EMISIONS
- ANNUAL EMISSIONS

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

Vista Reservoir MSWD
Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.23	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use - Reservoir Site

Construction Phase - Clear Grub: 2 dys, Earthworks: 2 wks, Storm Drain Culverts: 2 wks, Foundation: 2 wks, Tank: 3 mts, Equip: 1 mth, Finish: 2 wks

Trips and VMT - 5-7 workers per phase

Off-road Equipment - Prep: 2 bobcats (modeled as skid steer loaders)

Off-road Equipment - Earthworks: 2 bobcats, 2 loader/backhoes

Off-road Equipment - Storm Dr Culverts: 1 loader/backhoe, 2 bobcats

Off-road Equipment - Foundation: 1 loader/backhoe, 2 bobcats, 1 pump, 1 mixer

Off-road Equipment - Tank: 1 crane, 1 loader/backhoe, 1 gen set, 1 forklift, 2 air compressors for paint, 1 aerial lift

Off-road Equipment - Equip Install: 1 crane, 1 forklift, 1 gen set, 1 loader/backhoe, 3 welders

Off-road Equipment - Finish: 1 paver, 1 roller, 1 compactor

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	200.00	60.00
tblConstructionPhase	NumDays	200.00	20.00
tblConstructionPhase	PhaseEndDate	11/12/2021	2/2/2021
tblConstructionPhase	PhaseEndDate	2/5/2021	1/18/2021
tblConstructionPhase	PhaseEndDate	2/1/2021	1/4/2021
tblConstructionPhase	PhaseStartDate	2/6/2021	1/20/2021
tblConstructionPhase	PhaseStartDate	2/2/2021	1/5/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblGrading	AcresOfGrading	3.75	1.50
tblLandUse	LotAcreage	0.00	1.23
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Foundation
tblOffRoadEquipment	PhaseName		Foundation
tblOffRoadEquipment	PhaseName		Foundation
tblOffRoadEquipment	PhaseName		Earthworks
tblOffRoadEquipment	PhaseName		Storm Drain Culverts
tblOffRoadEquipment	PhaseName		Storm Drain Culverts
tblOffRoadEquipment	PhaseName		Tank Construction
tblOffRoadEquipment	PhaseName		Finish
tblOffRoadEquipment	PhaseName		Tank Construction
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	14.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00

2.0 Emissions Summary

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.8642	13.8426	13.2987	0.0236	5.9106	0.6853	5.9926	2.9831	0.6617	3.0586	0.0000	2,219.4534	2,219.4534	0.3636	0.0000	2,228.4645
Maximum	1.8642	13.8426	13.2987	0.0236	5.9106	0.6853	5.9926	2.9831	0.6617	3.0586	0.0000	2,219.4534	2,219.4534	0.3636	0.0000	2,228.4645

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.8642	13.8426	13.2987	0.0236	2.7208	0.6853	2.8028	1.3586	0.6617	1.4340	0.0000	2,219.4534	2,219.4534	0.3636	0.0000	2,228.4645
Maximum	1.8642	13.8426	13.2987	0.0236	2.7208	0.6853	2.8028	1.3586	0.6617	1.4340	0.0000	2,219.4534	2,219.4534	0.3636	0.0000	2,228.4645

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.97	0.00	53.23	54.46	0.00	53.11	0.00	0.00	0.00	0.00	0.00	0.00

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/4/2021	5	2	
2	Earthworks	Grading	1/5/2021	1/18/2021	5	10	
3	Storm Drain Culverts	Trenching	1/20/2021	2/2/2021	5	10	
4	Foundation	Grading	2/4/2021	2/17/2021	5	10	
5	Tank Construction	Building Construction	2/18/2021	5/12/2021	5	60	
6	Equipment Install and Piping	Building Construction	5/15/2021	6/11/2021	5	20	
7	Finish	Paving	6/15/2021	6/28/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Tank Construction	Aerial Lifts	1	6.00	63	0.31
Tank Construction	Cranes	1	6.00	231	0.29
Equipment Install and Piping	Cranes	1	6.00	231	0.29
Foundation	Skid Steer Loaders	2	7.00	65	0.37
Foundation	Pumps	1	4.00	84	0.74
Foundation	Cement and Mortar Mixers	1	4.00	9	0.56
Earthworks	Skid Steer Loaders	2	7.00	65	0.37
Tank Construction	Forklifts	1	6.00	89	0.20
Equipment Install and Piping	Forklifts	1	6.00	89	0.20
Tank Construction	Generator Sets	1	8.00	84	0.74
Storm Drain Culverts	Skid Steer Loaders	2	6.00	65	0.37
Storm Drain Culverts	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Equipment Install and Piping	Generator Sets	1	8.00	84	0.74
Earthworks	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Tank Construction	Air Compressors	2	6.00	78	0.48
Finish	Plate Compactors	1	6.00	8	0.43
Finish	Pavers	1	6.00	130	0.42
Finish	Rollers	1	7.00	80	0.38
Tank Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Equipment Install and Piping	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Foundation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Equipment Install and Piping	Welders	3	8.00	46	0.45
Site Preparation	Skid Steer Loaders	2	8.00	65	0.37

Trips and VMT

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Tank Construction	7	10.00	2.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Storm Drain Culverts	7	10.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Equipment Install and Piping	7	10.00	2.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Earthworks	3	14.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	3	10.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Finish	5	10.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	0.1504	1.9989	2.7686	4.1200e-003		0.0813	0.0813		0.0748	0.0748		398.7735	398.7735	0.1290		401.9978
Total	0.1504	1.9989	2.7686	4.1200e-003	5.7996	0.0813	5.8809	2.9537	0.0748	3.0285		398.7735	398.7735	0.1290		401.9978

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6098	0.0000	2.6098	1.3292	0.0000	1.3292			0.0000			0.0000
Off-Road	0.1504		2.7686	4.1200e-003		0.0813	0.0813		0.0748	0.0748	0.0000	398.7735	398.7735	0.1290		401.9978
Total	0.1504		2.7686	4.1200e-003	2.6098	0.0813	2.6911	1.3292	0.0748	1.4040	0.0000	398.7735	398.7735	0.1290		401.9978

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288

3.3 Earthworks - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6756	0.0000	4.6756	2.4999	0.0000	2.4999			0.0000			0.0000
Off-Road	0.4593	5.0667	6.3780	9.0400e-003		0.2668	0.2668		0.2454	0.2454		875.5020	875.5020	0.2832		882.5808
Total	0.4593	5.0667	6.3780	9.0400e-003	4.6756	0.2668	4.9424	2.4999	0.2454	2.7453		875.5020	875.5020	0.2832		882.5808

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.3 Earthworks - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2400e-003	0.0899	0.0159	2.4000e-004	5.7600e-003	1.6000e-004	5.9200e-003	1.6600e-003	1.5000e-004	1.8100e-003		25.3740	25.3740	1.9300e-003		25.4222
Worker	0.0661	0.0376	0.5144	1.4900e-003	0.1554	9.2000e-004	0.1563	0.0412	8.4000e-004	0.0421		148.0721	148.0721	3.5300e-003		148.1604
Total	0.0683	0.1274	0.5304	1.7300e-003	0.1612	1.0800e-003	0.1623	0.0429	9.9000e-004	0.0439		173.4461	173.4461	5.4600e-003		173.5826

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1040	0.0000	2.1040	1.1249	0.0000	1.1249			0.0000			0.0000
Off-Road	0.4593	3.3177	6.3780	9.0400e-003		0.2668	0.2668		0.2454	0.2454	0.0000	875.5020	875.5020	0.2832		882.5808
Total	0.4593	3.3177	6.3780	9.0400e-003	2.1040	0.2668	2.3708	1.1249	0.2454	1.3704	0.0000	875.5020	875.5020	0.2832		882.5808

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.3 Earthworks - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2400e-003	0.0899	0.0159	2.4000e-004	5.7600e-003	1.6000e-004	5.9200e-003	1.6600e-003	1.5000e-004	1.8100e-003		25.3740	25.3740	1.9300e-003		25.4222
Worker	0.0661	0.0376	0.5144	1.4900e-003	0.1554	9.2000e-004	0.1563	0.0412	8.4000e-004	0.0421		148.0721	148.0721	3.5300e-003		148.1604
Total	0.0683	0.1274	0.5304	1.7300e-003	0.1612	1.0800e-003	0.1623	0.0429	9.9000e-004	0.0439		173.4461	173.4461	5.4600e-003		173.5826

3.4 Storm Drain Culverts - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2532	2.9211	3.7717	5.4200e-003		0.1448	0.1448		0.1332	0.1332		524.7552	524.7552	0.1697		528.9981
Total	0.2532	2.9211	3.7717	5.4200e-003		0.1448	0.1448		0.1332	0.1332		524.7552	524.7552	0.1697		528.9981

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.4 Storm Drain Culverts - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2400e-003	0.0899	0.0159	2.4000e-004	5.7600e-003	1.6000e-004	5.9200e-003	1.6600e-003	1.5000e-004	1.8100e-003		25.3740	25.3740	1.9300e-003		25.4222
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0494	0.1167	0.3834	1.3000e-003	0.1168	8.1000e-004	0.1176	0.0311	7.5000e-004	0.0319		131.1398	131.1398	4.4500e-003		131.2510

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2532	1.4219	3.7717	5.4200e-003		0.1448	0.1448		0.1332	0.1332	0.0000	524.7552	524.7552	0.1697		528.9981
Total	0.2532	1.4219	3.7717	5.4200e-003		0.1448	0.1448		0.1332	0.1332	0.0000	524.7552	524.7552	0.1697		528.9981

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.4 Storm Drain Culverts - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2400e-003	0.0899	0.0159	2.4000e-004	5.7600e-003	1.6000e-004	5.9200e-003	1.6600e-003	1.5000e-004	1.8100e-003		25.3740	25.3740	1.9300e-003		25.4222
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0494	0.1167	0.3834	1.3000e-003	0.1168	8.1000e-004	0.1176	0.0311	7.5000e-004	0.0319		131.1398	131.1398	4.4500e-003		131.2510

3.5 Foundation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.5150	5.1970	6.4248	9.9700e-003		0.2649	0.2649		0.2514	0.2514		948.9904	948.9904	0.2176		954.4308
Total	0.5150	5.1970	6.4248	9.9700e-003	4.9143	0.2649	5.1792	2.5256	0.2514	2.7770		948.9904	948.9904	0.2176		954.4308

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.5 Foundation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2400e-003	0.0899	0.0159	2.4000e-004	5.7600e-003	1.6000e-004	5.9200e-003	1.6600e-003	1.5000e-004	1.8100e-003		25.3740	25.3740	1.9300e-003		25.4222
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0494	0.1167	0.3834	1.3000e-003	0.1168	8.1000e-004	0.1176	0.0311	7.5000e-004	0.0319		131.1398	131.1398	4.4500e-003		131.2510

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2114	0.0000	2.2114	1.1365	0.0000	1.1365			0.0000			0.0000
Off-Road	0.5150	1.8429	6.4248	9.9700e-003		0.2649	0.2649		0.2514	0.2514	0.0000	948.9904	948.9904	0.2176		954.4308
Total	0.5150	1.8429	6.4248	9.9700e-003	2.2114	0.2649	2.4763	1.1365	0.2514	1.3879	0.0000	948.9904	948.9904	0.2176		954.4308

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.5 Foundation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.2400e-003	0.0899	0.0159	2.4000e-004	5.7600e-003	1.6000e-004	5.9200e-003	1.6600e-003	1.5000e-004	1.8100e-003		25.3740	25.3740	1.9300e-003		25.4222
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0494	0.1167	0.3834	1.3000e-003	0.1168	8.1000e-004	0.1176	0.0311	7.5000e-004	0.0319		131.1398	131.1398	4.4500e-003		131.2510

3.6 Tank Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3703	12.6109	12.1938	0.0216		0.6587	0.6587		0.6345	0.6345		2,062.9396	2,062.9396	0.3541		2,071.7912
Total	1.3703	12.6109	12.1938	0.0216		0.6587	0.6587		0.6345	0.6345		2,062.9396	2,062.9396	0.3541		2,071.7912

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.6 Tank Construction - 2021
Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4900e-003	0.1797	0.0319	4.8000e-004	0.0115	3.2000e-004	0.0118	3.3200e-003	3.1000e-004	3.6200e-003		50.7481	50.7481	3.8500e-003		50.8444
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0517	0.2066	0.3993	1.5400e-003	0.1225	9.7000e-004	0.1235	0.0328	9.1000e-004	0.0337		156.5138	156.5138	6.3700e-003		156.6732

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3703	9.1094	12.1938	0.0216		0.6587	0.6587		0.6345	0.6345	0.0000	2,062.9396	2,062.9396	0.3541		2,071.7912
Total	1.3703	9.1094	12.1938	0.0216		0.6587	0.6587		0.6345	0.6345	0.0000	2,062.9396	2,062.9396	0.3541		2,071.7912

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.6 Tank Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4900e-003	0.1797	0.0319	4.8000e-004	0.0115	3.2000e-004	0.0118	3.3200e-003	3.1000e-004	3.6200e-003		50.7481	50.7481	3.8500e-003		50.8444
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0517	0.2066	0.3993	1.5400e-003	0.1225	9.7000e-004	0.1235	0.0328	9.1000e-004	0.0337		156.5138	156.5138	6.3700e-003		156.6732

3.7 Equipment Install and Piping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.7 Equipment Install and Piping - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4900e-003	0.1797	0.0319	4.8000e-004	0.0115	3.2000e-004	0.0118	3.3200e-003	3.1000e-004	3.6200e-003		50.7481	50.7481	3.8500e-003		50.8444
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0517	0.2066	0.3993	1.5400e-003	0.1225	9.7000e-004	0.1235	0.0328	9.1000e-004	0.0337		156.5138	156.5138	6.3700e-003		156.6732

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.7 Equipment Install and Piping - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4900e-003	0.1797	0.0319	4.8000e-004	0.0115	3.2000e-004	0.0118	3.3200e-003	3.1000e-004	3.6200e-003		50.7481	50.7481	3.8500e-003		50.8444
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0517	0.2066	0.3993	1.5400e-003	0.1225	9.7000e-004	0.1235	0.0328	9.1000e-004	0.0337		156.5138	156.5138	6.3700e-003		156.6732

3.8 Finish - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3806	3.8185	3.9818	6.1800e-003		0.2043	0.2043		0.1886	0.1886		589.4830	589.4830	0.1850		594.1073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3806	3.8185	3.9818	6.1800e-003		0.2043	0.2043		0.1886	0.1886		589.4830	589.4830	0.1850		594.1073

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.8 Finish - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3806	3.6300	3.9818	6.1800e-003		0.2043	0.2043		0.1886	0.1886	0.0000	589.4830	589.4830	0.1850		594.1073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3806	3.6300	3.9818	6.1800e-003		0.2043	0.2043		0.1886	0.1886	0.0000	589.4830	589.4830	0.1850		594.1073

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

3.8 Finish - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288
Total	0.0472	0.0268	0.3675	1.0600e-003	0.1110	6.5000e-004	0.1117	0.0294	6.0000e-004	0.0300		105.7658	105.7658	2.5200e-003		105.8288

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	13.80	6.20	6.20	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	lb/day																	
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.1 Mitigation Measures Energy

Vista Reservoir MSWD - Riverside-Saltton Sea County, Summer

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

Vista Reservoir MSWD - Riverside-Salton Sea County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

Vista Reservoir MSWD
Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.23	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use - Reservoir Site

Construction Phase - Clear Grub: 2 dys, Earthworks: 2 wks, Storm Drain Culverts: 2 wks, Foundation: 2 wks, Tank: 3 mts, Equip: 1 mth, Finish: 2 wks

Trips and VMT - 5-7 workers per phase

Off-road Equipment - Prep: 2 bobcats (modeled as skid steer loaders)

Off-road Equipment - Earthworks: 2 bobcats, 2 loader/backhoes

Off-road Equipment - Storm Dr Culverts: 1 loader/backhoe, 2 bobcats

Off-road Equipment - Foundation: 1 loader/backhoe, 2 bobcats, 1 pump, 1 mixer

Off-road Equipment - Tank: 1 crane, 1 loader/backhoe, 1 gen set, 1 forklift, 2 air compressors for paint, 1 aerial lift

Off-road Equipment - Equip Install: 1 crane, 1 forklift, 1 gen set, 1 loader/backhoe, 3 welders

Off-road Equipment - Finish: 1 paver, 1 roller, 1 compactor

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	200.00	60.00
tblConstructionPhase	NumDays	200.00	20.00
tblConstructionPhase	PhaseEndDate	11/12/2021	2/2/2021
tblConstructionPhase	PhaseEndDate	2/5/2021	1/18/2021
tblConstructionPhase	PhaseEndDate	2/1/2021	1/4/2021
tblConstructionPhase	PhaseStartDate	2/6/2021	1/20/2021
tblConstructionPhase	PhaseStartDate	2/2/2021	1/5/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblGrading	AcresOfGrading	3.75	1.50
tblLandUse	LotAcreage	0.00	1.23
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Foundation
tblOffRoadEquipment	PhaseName		Foundation
tblOffRoadEquipment	PhaseName		Foundation
tblOffRoadEquipment	PhaseName		Earthworks
tblOffRoadEquipment	PhaseName		Storm Drain Culverts
tblOffRoadEquipment	PhaseName		Storm Drain Culverts
tblOffRoadEquipment	PhaseName		Tank Construction
tblOffRoadEquipment	PhaseName		Finish
tblOffRoadEquipment	PhaseName		Tank Construction
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00

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tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	14.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00

2.0 Emissions Summary

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0703	0.6121	0.6217	1.1100e-003	0.0612	0.0312	0.0923	0.0301	0.0299	0.0599	0.0000	95.7025	95.7025	0.0172	0.0000	96.1319
Maximum	0.0703	0.6121	0.6217	1.1100e-003	0.0612	0.0312	0.0923	0.0301	0.0299	0.0599	0.0000	95.7025	95.7025	0.0172	0.0000	96.1319

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0703	0.4711	0.6217	1.1100e-003	0.0316	0.0312	0.0628	0.0146	0.0299	0.0445	0.0000	95.7024	95.7024	0.0172	0.0000	96.1318
Maximum	0.0703	0.4711	0.6217	1.1100e-003	0.0316	0.0312	0.0628	0.0146	0.0299	0.0445	0.0000	95.7024	95.7024	0.0172	0.0000	96.1318

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	23.04	0.00	0.00	48.34	0.00	32.02	51.36	0.00	25.78	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.2914	0.2030
2	4-1-2021	6-30-2021	0.3920	0.3386
		Highest	0.3920	0.3386

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/4/2021	5	2	
2	Earthworks	Grading	1/5/2021	1/18/2021	5	10	
3	Storm Drain Culverts	Trenching	1/20/2021	2/2/2021	5	10	
4	Foundation	Grading	2/4/2021	2/17/2021	5	10	
5	Tank Construction	Building Construction	2/18/2021	5/12/2021	5	60	
6	Equipment Install and Piping	Building Construction	5/15/2021	6/11/2021	5	20	
7	Finish	Paving	6/15/2021	6/28/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

Offroad Equipment

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Tank Construction	Aerial Lifts	1	6.00	63	0.31
Tank Construction	Cranes	1	6.00	231	0.29
Equipment Install and Piping	Cranes	1	6.00	231	0.29
Foundation	Skid Steer Loaders	2	7.00	65	0.37
Foundation	Pumps	1	4.00	84	0.74
Foundation	Cement and Mortar Mixers	1	4.00	9	0.56
Earthworks	Skid Steer Loaders	2	7.00	65	0.37
Tank Construction	Forklifts	1	6.00	89	0.20
Equipment Install and Piping	Forklifts	1	6.00	89	0.20
Tank Construction	Generator Sets	1	8.00	84	0.74
Storm Drain Culverts	Skid Steer Loaders	2	6.00	65	0.37
Storm Drain Culverts	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Equipment Install and Piping	Generator Sets	1	8.00	84	0.74
Earthworks	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Tank Construction	Air Compressors	2	6.00	78	0.48
Finish	Plate Compactors	1	6.00	8	0.43
Finish	Pavers	1	6.00	130	0.42
Finish	Rollers	1	7.00	80	0.38
Tank Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Equipment Install and Piping	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Foundation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Equipment Install and Piping	Welders	3	8.00	46	0.45
Site Preparation	Skid Steer Loaders	2	8.00	65	0.37

Trips and VMT

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Tank Construction	7	10.00	2.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Storm Drain Culverts	7	10.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Equipment Install and Piping	7	10.00	2.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Earthworks	3	14.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	3	10.00	1.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT
Finish	5	10.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	2.0000e-003	2.7700e-003	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.3618	0.3618	1.2000e-004	0.0000	0.3647
Total	1.5000e-004	2.0000e-003	2.7700e-003	0.0000	5.8000e-003	8.0000e-005	5.8800e-003	2.9500e-003	7.0000e-005	3.0200e-003	0.0000	0.3618	0.3618	1.2000e-004	0.0000	0.3647

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3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0883
Total	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0883

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6100e-003	0.0000	2.6100e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004		2.7700e-003	0.0000		8.0000e-005	8.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.3618	0.3618	1.2000e-004	0.0000	0.3647
Total	1.5000e-004		2.7700e-003	0.0000	2.6100e-003	8.0000e-005	2.6900e-003	1.3300e-003	7.0000e-005	1.4000e-003	0.0000	0.3618	0.3618	1.2000e-004	0.0000	0.3647

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3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0883
Total	4.0000e-005	3.0000e-005	3.1000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0883

3.3 Earthworks - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0234	0.0000	0.0234	0.0125	0.0000	0.0125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0253	0.0319	5.0000e-005		1.3300e-003	1.3300e-003		1.2300e-003	1.2300e-003	0.0000	3.9712	3.9712	1.2800e-003	0.0000	4.0033
Total	2.3000e-003	0.0253	0.0319	5.0000e-005	0.0234	1.3300e-003	0.0247	0.0125	1.2300e-003	0.0137	0.0000	3.9712	3.9712	1.2800e-003	0.0000	4.0033

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3.3 Earthworks - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1131	0.1131	1.0000e-005	0.0000	0.1134
Worker	3.0000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.6000e-004	0.0000	7.7000e-004	2.0000e-004	0.0000	2.1000e-004	0.0000	0.6181	0.6181	1.0000e-005	0.0000	0.6184
Total	3.1000e-004	6.5000e-004	2.2800e-003	1.0000e-005	7.9000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.7312	0.7312	2.0000e-005	0.0000	0.7318

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0105	0.0000	0.0105	5.6200e-003	0.0000	5.6200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0166	0.0319	5.0000e-005		1.3300e-003	1.3300e-003		1.2300e-003	1.2300e-003	0.0000	3.9712	3.9712	1.2800e-003	0.0000	4.0033
Total	2.3000e-003	0.0166	0.0319	5.0000e-005	0.0105	1.3300e-003	0.0119	5.6200e-003	1.2300e-003	6.8500e-003	0.0000	3.9712	3.9712	1.2800e-003	0.0000	4.0033

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3.3 Earthworks - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1131	0.1131	1.0000e-005	0.0000	0.1134
Worker	3.0000e-004	2.0000e-004	2.1900e-003	1.0000e-005	7.6000e-004	0.0000	7.7000e-004	2.0000e-004	0.0000	2.1000e-004	0.0000	0.6181	0.6181	1.0000e-005	0.0000	0.6184
Total	3.1000e-004	6.5000e-004	2.2800e-003	1.0000e-005	7.9000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.7312	0.7312	2.0000e-005	0.0000	0.7318

3.4 Storm Drain Culverts - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	0.0146	0.0189	3.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	2.3803	2.3803	7.7000e-004	0.0000	2.3995
Total	1.2700e-003	0.0146	0.0189	3.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	2.3803	2.3803	7.7000e-004	0.0000	2.3995

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3.4 Storm Drain Culverts - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1131	0.1131	1.0000e-005	0.0000	0.1134
Worker	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417
Total	2.2000e-004	5.9000e-004	1.6500e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	7.1100e-003	0.0189	3.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	2.3803	2.3803	7.7000e-004	0.0000	2.3995
Total	1.2700e-003	7.1100e-003	0.0189	3.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	2.3803	2.3803	7.7000e-004	0.0000	2.3995

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3.4 Storm Drain Culverts - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1131	0.1131	1.0000e-005	0.0000	0.1134
Worker	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417
Total	2.2000e-004	5.9000e-004	1.6500e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551

3.5 Foundation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0246	0.0000	0.0246	0.0126	0.0000	0.0126	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0260	0.0321	5.0000e-005		1.3200e-003	1.3200e-003		1.2600e-003	1.2600e-003	0.0000	4.3046	4.3046	9.9000e-004	0.0000	4.3292
Total	2.5800e-003	0.0260	0.0321	5.0000e-005	0.0246	1.3200e-003	0.0259	0.0126	1.2600e-003	0.0139	0.0000	4.3046	4.3046	9.9000e-004	0.0000	4.3292

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3.5 Foundation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1131	0.1131	1.0000e-005	0.0000	0.1134
Worker	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417
Total	2.2000e-004	5.9000e-004	1.6500e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.6800e-003	0.0000	5.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	9.2100e-003	0.0321	5.0000e-005		1.3200e-003	1.3200e-003		1.2600e-003	1.2600e-003	0.0000	4.3045	4.3045	9.9000e-004	0.0000	4.3292
Total	2.5800e-003	9.2100e-003	0.0321	5.0000e-005	0.0111	1.3200e-003	0.0124	5.6800e-003	1.2600e-003	6.9400e-003	0.0000	4.3045	4.3045	9.9000e-004	0.0000	4.3292

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3.5 Foundation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.5000e-004	9.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1131	0.1131	1.0000e-005	0.0000	0.1134
Worker	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417
Total	2.2000e-004	5.9000e-004	1.6500e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5546	0.5546	2.0000e-005	0.0000	0.5551

3.6 Tank Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0411	0.3783	0.3658	6.5000e-004		0.0198	0.0198		0.0190	0.0190	0.0000	56.1440	56.1440	9.6400e-003	0.0000	56.3849
Total	0.0411	0.3783	0.3658	6.5000e-004		0.0198	0.0198		0.0190	0.0190	0.0000	56.1440	56.1440	9.6400e-003	0.0000	56.3849

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3.6 Tank Construction - 2021
Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	5.4200e-003	1.0400e-003	1.0000e-005	3.4000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.3576	1.3576	1.1000e-004	0.0000	1.3604
Worker	1.2800e-003	8.6000e-004	9.3900e-003	3.0000e-005	3.2700e-003	2.0000e-005	3.2900e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.6488	2.6488	6.0000e-005	0.0000	2.6503
Total	1.4200e-003	6.2800e-003	0.0104	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.7000e-004	3.0000e-005	1.0000e-003	0.0000	4.0064	4.0064	1.7000e-004	0.0000	4.0107

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0411	0.2733	0.3658	6.5000e-004		0.0198	0.0198		0.0190	0.0190	0.0000	56.1440	56.1440	9.6400e-003	0.0000	56.3849
Total	0.0411	0.2733	0.3658	6.5000e-004		0.0198	0.0198		0.0190	0.0190	0.0000	56.1440	56.1440	9.6400e-003	0.0000	56.3849

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3.6 Tank Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	5.4200e-003	1.0400e-003	1.0000e-005	3.4000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.3576	1.3576	1.1000e-004	0.0000	1.3604
Worker	1.2800e-003	8.6000e-004	9.3900e-003	3.0000e-005	3.2700e-003	2.0000e-005	3.2900e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.6488	2.6488	6.0000e-005	0.0000	2.6503
Total	1.4200e-003	6.2800e-003	0.0104	4.0000e-005	3.6100e-003	3.0000e-005	3.6400e-003	9.7000e-004	3.0000e-005	1.0000e-003	0.0000	4.0064	4.0064	1.7000e-004	0.0000	4.0107

3.7 Equipment Install and Piping - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1364	0.1290	2.2000e-004		6.8400e-003	6.8400e-003		6.6100e-003	6.6100e-003	0.0000	18.1548	18.1548	3.2400e-003	0.0000	18.2358
Total	0.0181	0.1364	0.1290	2.2000e-004		6.8400e-003	6.8400e-003		6.6100e-003	6.6100e-003	0.0000	18.1548	18.1548	3.2400e-003	0.0000	18.2358

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3.7 Equipment Install and Piping - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.8100e-003	3.5000e-004	0.0000	1.1000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.4526	0.4526	4.0000e-005	0.0000	0.4535
Worker	4.3000e-004	2.9000e-004	3.1300e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8829	0.8829	2.0000e-005	0.0000	0.8835
Total	4.8000e-004	2.1000e-003	3.4800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.4000e-004	0.0000	1.3355	1.3355	6.0000e-005	0.0000	1.3369

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.1364	0.1290	2.2000e-004		6.8400e-003	6.8400e-003		6.6100e-003	6.6100e-003	0.0000	18.1547	18.1547	3.2400e-003	0.0000	18.2358
Total	0.0181	0.1364	0.1290	2.2000e-004		6.8400e-003	6.8400e-003		6.6100e-003	6.6100e-003	0.0000	18.1547	18.1547	3.2400e-003	0.0000	18.2358

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3.7 Equipment Install and Piping - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	1.8100e-003	3.5000e-004	0.0000	1.1000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.4526	0.4526	4.0000e-005	0.0000	0.4535
Worker	4.3000e-004	2.9000e-004	3.1300e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.8829	0.8829	2.0000e-005	0.0000	0.8835
Total	4.8000e-004	2.1000e-003	3.4800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.4000e-004	0.0000	1.3355	1.3355	6.0000e-005	0.0000	1.3369

3.8 Finish - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9000e-003	0.0191	0.0199	3.0000e-005		1.0200e-003	1.0200e-003		9.4000e-004	9.4000e-004	0.0000	2.6739	2.6739	8.4000e-004	0.0000	2.6948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.9000e-003	0.0191	0.0199	3.0000e-005		1.0200e-003	1.0200e-003		9.4000e-004	9.4000e-004	0.0000	2.6739	2.6739	8.4000e-004	0.0000	2.6948

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3.8 Finish - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417
Total	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9000e-003	0.0182	0.0199	3.0000e-005		1.0200e-003	1.0200e-003		9.4000e-004	9.4000e-004	0.0000	2.6739	2.6739	8.4000e-004	0.0000	2.6948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.9000e-003	0.0182	0.0199	3.0000e-005		1.0200e-003	1.0200e-003		9.4000e-004	9.4000e-004	0.0000	2.6739	2.6739	8.4000e-004	0.0000	2.6948

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3.8 Finish - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417
Total	2.1000e-004	1.4000e-004	1.5600e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4415	0.4415	1.0000e-005	0.0000	0.4417

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	13.80	6.20	6.20	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Vista Reservoir MSWD - Riverside-Salton Sea County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX 2

Biological Resources Assessment, Jurisdictional Delineation And Land Use Consistency Analysis For the Mission Springs Water District's Vista Reservoir Expansion

Desert Hot Springs Area of Riverside County, California
USGS –*Seven Palms Valley* Quadrangle
Township 3 S, Range 4 E; and Township 3 S, Range 5 E

Date Prepared: January 2021

Prepared for:

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Desert Hot Springs, CA 92240

On Behalf of:

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Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Lisa Patterson, National Senior Environmental Project Manager

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Table 1. Wetland Indicator Vegetation Categories

Table 2. CNDDDB Species and Habitats Documented Within the *Seven Palms Valley* USGS 7.5-minute Quadrangle

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Appendix A – Regulatory Framework

Appendix B – USFWS IPaC List

Executive Summary

Jacobs Engineering Group, Inc. (Jacobs) was retained by Tom Dodson and Associates (TDA) to conduct a Biological Resource Assessment (BRA) for the Mission Springs Water District (District) proposed second reservoir at the existing Vista Reservoir site (Project). The project is located at the northern terminus of Valencia Drive in the City of Desert Hot Springs. The project is mapped within the USGS 7.5-minute map for Seven Palms Valley in Section 19, Township 2 South and Range 5 East. The approximate GPS coordinates of the project site are 33.983003°, -116.493301°. Refer to Figures 1 and 2 for the regional and site location maps.

The District is a participant of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), and consequently the entire proposed Project site lies within the CVMSHCP Area. However, the Project area is not located within or immediately adjacent to a Conservation Area.

The Project site contains an existing reservoir, and is bounded by residential to the south and undeveloped lands to the east, north, and west. The location for the additional reservoir tank is characterized by disturbed largely unvegetated and compacted areas with some disturbed creosote bush scrub at the margins. There are several sensitive species documented within the Project vicinity, including the State and federally-listed as threatened desert tortoise (*Gopherus agassizii*) and burrowing owl (*Athene cunicularia*), which is a State and federal Species of Special Concern (SSC).

The CVMSHCP requires a habitat assessment for burrowing owl (BUOW). If habitat for the BUOW is present within the Project area, a focused survey is required. Suitable BUOW habitat was identified on site during the habitat assessment survey. Additionally, there is some moderately-suitable habitat for desert tortoise within and adjacent portions of the Project site. Therefore, focused protocol-level surveys for these species were conducted within the Project site and surrounding areas, wherever suitable habitat was present. However, the result of the focused desert tortoise and BUOW surveys was that no desert tortoise or BUOW individuals or sign were detected within the survey area. Therefore, these species are considered absent from the Project site at the time of survey.

No other listed or otherwise sensitive species or sensitive habitat was observed within the Project area and none are expected to occur on site.

No intermittent or ephemeral dry washes that would meet the definitions of State and federal jurisdictional waters as defined by Section 1600 of the State of California Fish and Game Code (FGC) or “Waters of the United States” (WoUS) as defined by Section 404 of the Clean Water Act (CWA) occur on the reservoir site. Therefore, no regulatory permits from these agencies may be required for this Project.

1 Introduction

Mission Springs Water District (MSWD or District) provides water and sewer services to the communities of Desert Hot Springs, West Garnet, North Palm Springs, and various portions of unincorporated Riverside County. MSWD, as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to develop a second reservoir at the existing Vista Reservoir site.

Jacobs has prepared this BRA and protocol-level focused desert tortoise and non-breeding season BUOW surveys report for the District's proposed Project. The BRA fieldwork and focused sensitive species surveys were conducted by Senior Project Ecologist Lisa Patterson on November 2, 2020. The purpose of the BRA is to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS).

The Project area was assessed for sensitive species known to occur locally. Attention was focused on those State- and/or federally-listed as threatened or endangered species and California Fully Protected species that have been documented in the Project vicinity, whose habitat requirements are present within or adjacent the Project site. Results of the biological resources assessment survey and focused surveys are intended to provide sufficient baseline information to the Project proponent and, if required, to federal and State regulatory agencies, including the U.S. Fish and Wildlife Service (USFWS) and CDFW, respectively, to determine if impacts will occur to sensitive biological resources and to identify mitigation measures to offset those impacts. Project site falls entirely within the CVMSHCP area, however, it is not within or adjacent to a Conservation Area.

In addition to the BRA and focused surveys conducted, Jacobs conducted a Jurisdictional Determination (JD) of the Project area. The purpose of this evaluation was to assess the potential presence and extent of State and/or federal jurisdictional waters within the Project area, potentially subject to regulation by the USACE under Section 404 of the CWA, Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1600 of the California FGC, respectively.

1.1 Project Description

The existing Vista Reservoir site is approximately 1.23 acres located in the northern portion of the District's service area; more specifically, at the northern terminus of Valencia Drive. The existing reservoir site as well as the surrounding area consists of mild to steep slopes desert scrub habitat. The reservoir site entry is compacted dirt road with unconsolidated asphalt base spread on the road and parking areas.

The proposed Vista Reservoir Project includes constructing a new 300,000-gallon reservoir approximately 30' northwest of the existing reservoir, see Figure 3 Site Plan. Development of the new reservoir at will require the construction of a retaining wall along the east side of the reservoir pad with heights ranging from 2' to 10'. In order to ensure no additional runoff on the adjacent southerly property, a v-ditch will be constructed around the existing tank area. Additionally, other drainage improvements include rip-rap energy dissipaters will be constructed to reduce storm flow velocities.

1.2 Location

The project is located at the northern terminus of Valencia Drive in the City of Desert Hot Springs. The project is mapped within the USGS 7.5-minute map for Seven Palms Valley in Section 19, Township 2 South and Range 5 East. The approximate GPS coordinates of the project site are 33.983003°, -116.493301°. Refer to Figures 1 and 2 for the regional and site location maps.

1.3 Environmental Setting

The Project site is within the City of Desert Hot Springs and adjacent unincorporated areas of Riverside County. The Desert Hot Springs area is situated in the northwestern end of the Coachella Valley and is bordered on the north and northeast by the Little San Bernardino Mountains, on the east/southeast by the Seven Palms Valley and Edom Hills and on the west by the San Bernardino Mountain foothills. The Desert Hot Springs area is subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures within this region peak at 108.2 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 42.3° F in December/January. Average annual precipitation is greatest from November through March and reaches a peak in January (1.13 inches). Precipitation is lowest in the months of May and June (0.05 inches). Annual total precipitation averages 5.49 inches.

Hydrologically, the Project area is located within the Mission Creek Hydrologic Sub-Area (HSA 719.42) which comprises a 73,873-acre drainage area within the larger Whitewater River Watershed (HUC 18100201). The Whitewater River is the major hydrogeomorphic feature within the Whitewater Watershed.

The primary soil types within the Project area are Ironlung-Rock outcrop complex 30-75 percent loopes, and Chuckawalla very gravelly sandy clay loam 5-15 percent slopes. These soil types consist of fine to gravelly loam that are comprised of alluvium derived from granitoid parent material as well as granite outcrops. Both soil types are excessively drained soils with very low to negligible runoff classes.

The general Project vicinity consists of residential development and disturbed undeveloped land, and existing paved and unpaved roads.

1.4 Biological Resources Assessment

Data regarding biological resources on the Project site were obtained through literature review and field investigations. Prior to performing the surveys, available databases and documentation relevant to the Project area were reviewed for documented occurrences of sensitive species in the Project vicinity (approximately 3 miles). The USFWS threatened and endangered species occurrence data overlay, the USFWS Information for Planning and Consultation (IPaC) online tool and the most recent versions of the California Natural Diversity Database (CNDDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data on the *Seven Palms Valley* USGS 7.5-Minute Series Quadrangle. These databases contain records of reported occurrences of state- and federally-listed species or otherwise sensitive species and habitats that may occur within the vicinity of the Project site (approximately 3 miles). Other available technical information on the biological resources of the area was also reviewed including previous surveys and recent findings.

Biological Resources Assessment

Lisa Patterson conducted a biological resources assessment of the Project area on November 2, 2020. The survey area encompassed the entire planned disturbance area and included 100 percent coverage of the site, as well as an approximately 200-meter and 400-meter buffer transects surrounding the site where feasible

and appropriate. Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined based upon known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the Project area.

Protocol-level Desert Tortoise Survey

Desert tortoise surveys was conducted November 2, 2020. in accordance with the protocols described in the USFWS's 2009 "*Desert Tortoise (Mojave Population) Field Manual: (Gopherus agassizii)*," the 2010 "*Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats*," and the August 31, 2017 survey protocol update, "*Preparing for Any Action That May Occur Within the Range of The Mojave Desert Tortoise (Gopherus agassizii)*." In accordance with the USFWS survey protocol, 100 percent visual coverage of the survey area was achieved by walking 10-meter (30-foot) wide belt transects over the entire Project site, to provide sufficient coverage, wherever there was potentially suitable desert tortoise habitat present (i.e. Sonoran mixed woody and succulent scrub habitat), to provide sufficient coverage to find signs of desert tortoise use to find signs of desert tortoise use (e.g., scat, burrows, carcasses, courtship rings, drinking depressions, etc. in addition to live tortoises). Portions of the Project area that were not surveyed to protocol-level coverage consisted of existing development and other disturbed areas that no longer support suitable desert tortoise habitat.

In addition to the 100 percent coverage of the Project site, the surveyor walked 200- meter and 400-meter transects around the perimeter of the Project site, in accordance with the USFWS 2010 *Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats*. It should be noted that these "zone of influence" transects are no longer required as of the 2017 updated protocol. However, to provide additional sampling of the areas adjacent the Project site, the 200-meter and 400-meter transects around the perimeter of the Project site were included in the survey. The transect routes were calculated and downloaded to handheld global positioning system (GPS) units that were used to accurately navigate the transects. Site photographs were taken during the field survey to catalog representative habitat (See attached Site Photos).

Non-breeding Season Burrowing Owl Survey

The focused BUOW survey was conducted in a manner consistent with the intent of the "*Burrowing Owl Survey Protocol and Mitigation Guidelines*" prepared by the California Burrowing Owl Consortium (1993) and the March 7, 2012 "*California Department of Fish and Game Staff Report on Burrowing Owl Mitigation*." Focused BUOW surveys were conducted during the non-breeding season from October to December of 2018. The surveys consisted of walking transects spaced approximately 10 meters (30 feet) apart to provide 100 percent visual coverage of the Project site. Adjacent areas that were not accessible on foot were surveyed with binoculars. During the survey, the biologists looked for BUOW and sign including, burrows, molted feathers, cast pellets, prey remains, owl white wash, and suitable surrogate burrows. The area was also assessed for soil type and level of friability as well as habitat type and habitat structure.

1.5 Jurisdictional Delineation

Jacobs regulatory specialist, Lisa Patterson, conducted a desktop and site evaluation of the Project area for the presence of riverine/riparian/wetland habitat and jurisdictional waters (i.e., WoUS), as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW.

Aerial photographs of the Project area were viewed and compared with the surrounding USGS 7.5-Minute Topographic Quadrangle map to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The USFWS National Wetland Inventory and Environmental Protection Agency (EPA) Water Program “My Waters” Google Earth Pro data layer were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site(s). Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed for soil types found within the Project area to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Upstream and downstream connectivity of waterways (if present) were reviewed on Google Earth Pro aerial photographs and topographic maps to determine jurisdictional status. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Watermark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents listed in Section 5 of this report.

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: hydrophytic *vegetation*, hydric *soils*, and wetland *hydrology*.

- ▶ **Hydrophytic vegetation:** Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the *2016 National Wetland Plant List (Western Mountains, Valleys & Coast Region)* (Lichvar, 2016). Each species on the list is rated according to a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

Table 1. Wetland Indicator Vegetation Categories

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

- ▶ **Hydric Soil:** Soil maps from the USDA-NRCS Web Soil Survey (USDA 2019) were reviewed for soil types found within the Project area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are several indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Gretag/Macbeth, 2000). Soil pits were dug to an approximate depth of 18 inches to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

- ▶ ***Wetland Hydrology:*** The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE, 1987 and 2008b).

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent of associated riparian vegetation.

2 Results

2.1 Existing Biological and Physical Conditions

The Project site consists urban environments and undeveloped land, occupying flat to moderately sloped terrain. The Project occurs at the northern end of an existing residential development, and appears the surrounding area are utilized for hiking and other urban recreational activities including OHV use, illegal dumping, and litter. The reservoir site is highly disturbed by the existing reservoir, access, and maintenance activities. The surveys were conducted in optimal conditions during active timeframes for the target species.

2.1.1 Habitat

Habitat that exists within and adjacent to the 1.2-acre reservoir site consists primarily unvegetated disturbed lands. The vegetated areas that do exist on slopes and the margins of the site are characterized by Sonoran mixed woody scrub habitat (CVMSHCP GIS Vegetation Layer 2019). Native plant species identified within the Project area include creosote bush (*Larrea tridentata*), catclaw acacia (*Acacia greggii*), white bursage (*Ambrosia dumosa*), brittlebush (*Encelia farinosa*), desert trumpet (*Eriogonum inflatum*), hairy desert sunflower (*Geraea canescens*), , desert dandelion (*Malacothrix glabrate*), and Ferocactus (*Ferocactus sp.*),. Non-native, invasive plant species identified within the Project area include Saharan mustard (*Brassica tournefortii*), foxtail brome (*Bromus madritensis ssp. rubens*), Russian thistle (*Salsola tragus*), Mediterranean grass (*Schismus ssp.*) and planted Eucalyptus trees around the existing reservoir (*Eucalyptus spp.*).

2.1.2 Wildlife

Amphibians and Reptiles

No amphibian species were observed or otherwise detected within the Project area and none are expected to occur. The only reptiles observed within the Project area was western side-blotched lizard (*Uta stansburiana elegans*).

Birds

Avian species observed in the Project area include common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), Say's phoebe (*Sayornis saya*), bushtit (*Psaltriparus minimus*) and mourning dove (*Zenaida macroura*).

Mammals

Identification of mammals within the Project area was generally determined by physical evidence rather than direct visual identification. This is because 1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey and 2) no mammal trapping was performed. Mammal species observed or otherwise detected during the reconnaissance-level survey included black-tailed jackrabbit (*Lepus californicus*) and domestic dogs. Other common species expected to occur within the Project area include coyote (*Canis latrans*), Merriams' kangaroo rat (*Dipodomys merriami*), and desert cottontail (*Sylvilagus audubonii*).

2.2 Special Status Species and Habitats

The CNDDDB, CNPSEI, and other relevant literature and databases, 61 sensitive species (29 plant species, 32 animal species) and three sensitive habitats have been documented in the *Seven Palms Valley*, USGS 7.5-minute series quadrangles. This list of sensitive species and habitats includes any State- and/or federally-listed threatened or endangered species, California Fully Protected species, CDFW designated SSC, and otherwise Special Animals. "Special Animals" is a general term that refers to all the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

Of the 11 State- and/or federally-listed species documented within the *Seven Palms Valley* quad, the following four State- and/or federally-listed species have been documented in the Project vicinity (within approximately 3 miles):

- Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*)
- desert tortoise (*Gopherus agassizii*)
- Coachella Valley fringe-toed lizard (*Uma inornata*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)

In addition to those species identified in the CNDDDB search, the USFWS IPaC query (Appendix B) identified the both southwestern willow flycatcher and least Bell's vireo. These species are riparian-obligate migratory bird species; and the habitat requirements for southwestern willow flycatcher and least Bell's vireo (i.e., riparian habitats) are absent from the Project area and immediate vicinity and the Project will not affect either of these state or federally-listed endangered species. Therefore, no further discussion of these species is warranted.

Although not a State- or federally-listed as threatened or endangered species, burrowing owl (*Athene cunicularia* [BUOW]) are considered a State and federal SSC and this species is protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California FGC (FGC #3513 & #3503.5). Furthermore, this species has been documented approximately 0.25 mile west of the 60-acre WWRF site. Therefore, BUOW will be included in the discussion below.

An analysis of the likelihood for occurrence of all CNDDDB sensitive species documented in the *Seven Palms Valley*, quad is provided in Table 2. This analysis considers species' range as well as documentation within the vicinity of the Project area and includes the habitat requirements for each species and the potential for their occurrence on site, based on required habitat elements and range relative to the current site conditions. Additionally, the results of the USFWS IPaC List are included in Appendix B.

The Project site is not within any sensitive habitats, including any USFWS designated Critical Habitat for any federally-listed species. Further, the project is not located in a conservation area as defined by the CVMSHCP.

2.2.1 Special Status Species

No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on site during the field survey and there is no suitable habitat for any sensitive species within the area of the Collection System component of the Project. However, some of the habitat requirements for several sensitive species documented within the Project vicinity (approximately 3 miles) are present within and adjacent the proposed 60-acre WWRF site, as well as adjacent a portion of the Conveyance System component of the project. In addition to the BRA survey, focused protocol-level surveys were conducted within the Project area for desert tortoise and BUOW.

Coachella Valley milk-vetch – Endangered (Federal)

The federally-listed as endangered Coachella Valley milk-vetch is an annual or short-lived perennial plant in the Fabaceae (pea) family. This species is primarily found on loose aeolian (i.e. wind transported) or alluvial (i.e. water transported) sands that are located on dunes or flats, and along disturbed margins of sandy washes in the Coachella Valley, Riverside County, California (USFWS 2009). The number of standing plants at any given time is only a partial indication of population size because the other portion of the population is the seed bank in the substrate that can persist dormant for several years (USFWS 2009). Coachella Valley milk-vetch typically blooms from February through May (Calflora 2017).

Findings: A focused Coachella Valley milk-vetch survey was not conducted. Further, no Coachella Valley milk-vetch were observed during the BRA survey, or other focused sensitive species surveys, and this species is not expected to occur within the Project area.

There are no Coachella Valley milk-vetch occurrences documented within the Project site and the habitat on site is not-suitable for this species, which occurs primarily on loose aeolian or alluvial sands located on dunes or flats, and along disturbed margins of sandy washes (USFWS 2009). The soils within the Project area consist of compacted sands that have become stabilized due to a moderately-dense vegetation cover, including several non-native species, particularly Saharan mustard and common Mediterranean grass (see attached Site Photos). Furthermore, the CVMSHCP has modeled suitable Coachella Valley milk-vetch habitat within the Plan area and the Project site is completely outside of any areas of modeled Coachella Valley milk-vetch habitat.

Desert Tortoise – Threatened (State/Federal)

The desert tortoise is a state- and federally-listed threatened species. Throughout its range, it is threatened by habitat loss, domestic grazing, predation, collections, and increased mortality rates. The desert tortoise is typically found in creosote bush scrub. They are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and in hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict exact numbers of individuals on a site based upon burrow numbers.

In 1992 the BLM issued the *California Statewide Desert Tortoise Management Policy* which included categorizing habitat into three levels of classification. The management goal for Category I areas is to maintain stable, viable populations and to increase the population where possible. The management goal for Category II areas is to maintain stable, viable populations. The management goal for Category III areas is to limit population declines to the extent feasible. In April 1993, the BLM amended the CDCA plan to delineate these three categories of desert tortoise habitat on public lands. With the adoption of the West Mojave Plan (BLM 2005), all lands that are outside Desert Wildlife Management Areas are characterized as Category 3 Habitat, which is the lowest priority management area for viable populations of the desert tortoise.

Findings: According to the literature review, the nearest documented desert tortoise occurrence (2004) is approximately 3.3 miles northeast of the Project area. The USFWS desert tortoise Critical Habitat overlay, does not identify the Project site within any USFWS designated desert tortoise Critical Habitat. Furthermore, the Project site is not within a BLM designated Desert Wildlife Management Area (USFWS 2011). Therefore, the habitat surrounding the site would be characterized as Category 3 Habitat by the BLM.

The habitat within and adjacent to the proposed Project, consists of disturbed Sonoran mixed woody scrub habitat that is marginally-suitable for desert tortoise. Therefore, focused protocol-level desert tortoise surveys were conducted in accordance with the USFWS survey protocols, within the Project impact area and surrounding buffer area, wherever there was potentially suitable desert tortoise habitat present (i.e. Sonoran mixed woody and succulent scrub habitat).

The result of the protocol desert tortoise survey was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including other desert tortoise burrows or scat were observed. Therefore, desert tortoises are considered absent from the Project area at the time of survey.

Coachella Valley fringe-toed lizard – Threatened (Federal)/ Endangered (State)

The Coachella Valley fringe-toed lizard (CVFTL) is a medium-sized lizard that has physical adaptations to keep fine sand out of its eyes, mouth, nose, and ears and is restricted to sand dune habitats on the floor of the Coachella Valley in Riverside County, California (USFWS 2010). CVFTL is specialized to occupy a specific habitat type consisting of accumulations of windblown (aeolian) sand. Deeper sand deposits with more topographic relief are preferred by the species over flatter sand sheets (USFWS 2010). CVFTL are typically active from February to October and dormant from November to January. During the summer months, the lizards escape the heat by “swimming” or burrowing beneath the sand and restricts its activities to the early morning and late afternoon hours (USFWS 2010).

Threats to CVFTL primarily consist of habitat destruction/alteration due to urban and agricultural development, OHV use, windbreaks, exotic vegetation, and other disruptions to the formation of the wind-blown sand drifts this lizard requires. It is estimated that approximately 90-95 percent of historical CVFTL

habitat has been lost and currently only 15,000-20,000 acres remain available (USFWS 2010). Thus, the CVFTL was listed as threatened under the federal ESA on September 25, 1980 and as endangered under the CESA that same year. Critical Habitat was designated for this species by the USFWS at the time of listing.

Findings: A focused CVFTL survey was not conducted, but no CVFTL were observed during the BRA survey, or other focused sensitive species surveys, and none are expected to occur within the Project area. The conditions present within the Project area are not suitable for CVFTL. This species requires aeolian sand dunes, particularly deeper sand deposits with more topographic relief than flatter sand sheets (USFWS 2010). There is no sand dune habitat within the Project site or immediate surrounding area. Rather, the habitat on site consists of relatively hilly Sonoran mixed woody scrub habitat. The sandy soils on site are compacted and stabilized due to a moderately-dense vegetation cover, including several non-native species, particularly Saharan mustard and common Mediterranean grass (see attached Site Photos). Furthermore, the CVMSHCP has modeled suitable CVFTL habitat within the Plan area and the Project site is completely outside of any areas of modeled suitable CVFTL habitat. Therefore, the site does not contain any habitat that would be considered suitable to support CVFTL and this species is not expected to occur within the Project area.

Burrowing owl – SSC

The BUOW is a ground dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW is heavily dependent upon the presence of mammal burrows, with ground squirrel burrows being a common choice, in its habitat to provide shelter from predators, inclement weather and to provide a nesting place (Coulombe 1971). They are also known to make use of human-created structures, such as cement culverts and pipes, for burrows. BUOW spend a great deal of time standing on dirt mounds at the entrance to a burrow or perched on a fence post or other low to the ground perch from which they hunt for prey. They feed primarily on insects such as grasshoppers, June beetles and moths, but will also take small rodents, birds, and reptiles. They are active during the day and night, but are considered a crepuscular owl; generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31.

BUOW have disappeared from significant portions of their range in the last 15 years and, overall, nearly 60% of the breeding groups of owls known to have existed in California during the 1980s had disappeared by the early 1990s (Burrowing Owl Consortium 1993). The BUOW is not listed under the State or federal ESA, but is considered both a State and federal SSC. The BUOW is a migratory bird protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California FGC (FGC #3513 & #3503.5).

Findings: Based upon the literature review, the nearest documented BUOW occurrence (2007) is approximately 0.25 mile west of the proposed reservoir site. There are no BUOW occurrences documented within the Project site.

Given the definition provided in the *2012 CDFG Staff Report on Burrowing Owl Mitigation*, “Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey.” The habitat within and adjacent the proposed reservoir site, does contain marginally suitable habitat for this species for the following reasons:

- *The site and immediate vicinity contain areas of short, sparse vegetation, and*
- *The site contains patches of well-drained, friable soils.*

Therefore, focused non-breeding season BUOW survey was conducted within the Project area during the 2020 non-breeding season.

Prior to performing the field surveys, available databases and documentation, such as the USFWS threatened and endangered species occurrence data overlay as well as the most recent version of the CNDDDB, were reviewed for documented occurrences of BUOW in the local vicinity within the *Seven Palms Valley* quad.

The surveys were conducted on calm weather days, during peak BUOW activity between the morning hours of 6:00 a.m. and 10:00 a.m. and evening hours of 3:30 p.m. to 6:30 p.m. in accordance with the *“Burrowing Owl Survey Protocol and Mitigation Guidelines”* prepared by the California Burrowing Owl Consortium (1993) and the March 7, 2012 *“California Department of Fish and Game Staff Report on Burrowing Owl Mitigation.”*

All natural and non-natural substrates were inspected and searched for signs of BUOW including, burrows, molted feathers, cast pellets, prey remains, and owl white-wash. All potential BUOW burrows encountered were examined for shape, scat, pellets, and tracks. A digital camera was used to take representative photographs, and Google Earth Pro was accessed to provide recent aerial photographs of the Project site and surrounding area.

The result of the focused BUOW surveys is that no BUOW individuals or sign were observed within the survey area. Therefore, BUOW are considered absent from the Project area at the time of survey.

2.2.2 Special Status Habitats

The Project site is not within any special status habitats, including any USFWS designated Critical Habitat for any federally-listed species. The Project will not result in any impacts to adjacent Critical Habitat units, or any other special status habitats.

2.3 Jurisdictional Delineation

The Project site is within the Mission Creek Hydrologic Sub-Area (HSA 719.42) which comprises a 73,873-acre drainage area within the larger Whitewater River Watershed (HUC 18100201). This watershed is primarily within Riverside County with a small portion of San Bernardino County. The Whitewater River Watershed is bound on the north by the Santa Ana and Southern Mojave Watersheds, on the southeast by the Salton Sea Watershed, on the south by the San Felipe Creek Watershed and on the southwest by the San Jacinto and Santa Margarita Watersheds. The Whitewater River Watershed encompasses a portion of the San Bernardino and Little San Bernardino Mountains to the north and the San Jacinto Mountains to the south and is approximately 1,500 square miles in area. The Whitewater River is the major hydrogeomorphic feature within the Whitewater River Watershed.

Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in WoUS under Section 404 CWA. WoUS are defined in the 2019 Navigable Waters Protection Rule: “All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate

lakes, rivers, streams (including intermittent streams), mudflats, sand flats, adjacent wetlands, sloughs, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters” (Section 404 of the CWA; 33 CFR 328.3 (a). CWA jurisdiction exists over the following:

1. all traditional navigable waters (TNWs);
2. all wetlands adjacent to TNWs;
3. non-navigable tributaries of TNWs that are relatively permanent waters (RPWs) i.e., tributaries that typically flow year-round or have continuous flow at least seasonally; and
4. every water body determined to have a significant nexus with TNWs.

There are no features within the Project site that meets any of the criteria to be a WoUS.

USACE Wetlands

Areas meeting all three parameters would be designated as USACE wetlands. None of the three required parameters, hydrophitic vegetation, hydric soils and/or wetland hydrology, are present within the Project site. Therefore, no wetlands were identified in the study area during this investigation based of the absence of hydrophitic vegetation, hydric soil indicators and/or wetland hydrology.

State Lake/Streambed

The Project site is situated on flat to gently-sloped terrain consisting primarily of residential development, roads and Sonoran mixed woody scrub habitat. There are no drainage features with a discernable bend and bank, riparian habitat, or other features that would fall under Section 1600 of the FGC.

2.4 Land Use Designations

Coachella Valley MSHCP

The County of Riverside developed the CVMSHCP to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth. The CVMSHCP sets Conservation Goals and Objectives to ensure the conservation of the Covered Species and conserved natural communities in the MSHCP Reserve System. In addition to setting Conservation Goals and Objectives for the Covered Species and conserved natural communities, the MSHCP has designated Core Habitat, Other Conserved Habitat, Essential Ecological Processes, and Biological Corridors and Linkages. The CVMSHCP area is divided into Conservation Areas based on a combination of ecological and jurisdictional factors. The CVMSHCP is intended to satisfy the legal requirements to authorize the “take” of species covered under the Plan during otherwise lawful activities, by providing for the conservation of the Covered Species.

The proposed reservoir site is outside any Conservation Areas (Figure 4). Because the Project site is not located within or adjacent to a conversation area and will not impact any Biological Corridors and Linkages or Essential Ecological Processes; no measures identified in Section 4.5 of the CVMSHCP to minimization indirect effects from development sharing a common boundary with Conservation Areas will be required for this project.

The Project proponent should be prepared to pay the MSHCP fees and restrict all project related impacts to the project site and/or other areas outside of the Conservation Areas. No other conservation or avoidance measures are expected.

3 Conclusions and Recommendations

3.1 Sensitive Biological Resources

A BRA and focused protocol-level desert tortoise and BUOW surveys were conducted by Lisa Patterson on November 2, 2020, to identify potential suitable habitat for special status species that have been documented within the Project vicinity, including the state- and/or federally-listed species discussed in Section 3.2.1 (above), as well as BUOW. The result of the surveys is that no listed plant or animal species were detected within the Project area and none are expected to occur. The Project site consists urban environments and undeveloped land. The Project is within an undeveloped 1.23-acre site consisting of disturbed Sonoran mixed woody scrub habitat. Due to the environmental conditions within the Project area and surrounding land uses, the Project site is not likely to support any of the state- or federally-listed species that have been documented in the Project vicinity.

The Project is not located within any USFWS designated Critical Habitat for threatened or endangered species and will not impact any Critical Habitat, or otherwise sensitive habitats.

Coachella Valley milk-vetch

The proposed 1.23-acre reservoir site does not contain suitable habitat to support the federally endangered Coachella Valley milk-vetch. Further, the sandy soils within the Project area are stabilized due to a moderately-dense vegetation cover (see attached Site Photos), including several non-native, invasive species and Coachella Valley milk-vetch typically occurs on loose aeolian or alluvial sands located on dunes or flats, and along disturbed margins of sandy washes. Furthermore, the CVMSHCP has modeled suitable Coachella Valley milk-vetch habitat within the Plan area and the Project site is completely outside of any areas of modeled Coachella Valley milk-vetch habitat. Therefore, it is unlikely this species occurs within the Project area in any significant numbers and any potential project-related impacts would be considered less than significant.

Additionally, the Project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch and this species is one of the CVMSHCP Covered Species. The CVMSHCP provides “take” authorization for Covered Species during otherwise lawful activities, by providing for the conservation of the Covered Species. The District is a signatory to the CVMSHCP. Since the Coachella Valley milk-vetch is a Covered Species under the CVMSHCP and the Project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch, “take” authorization is provided for any potential Project-related impacts to this species.

Desert tortoise

The habitat within and adjacent the proposed 1.23-acre reservoir site consists of disturbed Sonoran mixed woody scrub habitat that is marginally-suitable for desert tortoise and this species has not been documented in the Project vicinity. Additionally, the result of focused protocol-level desert tortoise surveys conducted in 2020, within the Project impact area and surrounding buffer area, was that no evidence of desert tortoise presence was found in the survey area. No desert tortoise individuals or sign including other desert tortoise burrows or scat were observed. Therefore, desert tortoises are considered absent from the Project area at the time of survey and the Project is not likely to impact this species.

Burrowing owl

There is suitable BUOW habitat within and adjacent the proposed 1.23-acre reservoir site. The result of focused non-breeding season BUOW surveys conducted in 2020, was that no BUOW individuals or sign were observed within the survey area. Therefore, BUOW are considered absent from the Project area at the time of survey and the Project is not likely to impact this species. However, given that there is suitable BUOW habitat within the Project area and this species has been documented in the near Project vicinity, it is recommended that:

- A **30-day** preconstruction **BUOW survey** be conducted by a qualified biologist prior to commencement of Project activities, to avoid any potential Project-related impacts to BUOW that may move onto the site in the future.

According to protocol and standard practices, the results of the habitat assessment surveys will remain valid for the period of one year. After which time, if the site has not been disturbed in the interim, another survey may be required to determine the persisting absence of desert tortoise, BUOW and other sensitive flora and fauna on-site. Regardless of survey results and conclusions given herein, desert tortoise and BUOW are protected by applicable state and/or federal laws, including but not exclusive to the CESA and Federal ESA. As such, if a desert tortoise or BUOW are found on-site during work activities, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions. Additionally, it should be noted that desert tortoise may be handled only by a qualified biologist who has been given authorization by the appropriate agencies (i.e. USFWS and CDFW).

Nesting Birds

The Project site and surrounding area consists of Sonoran mixed woody scrub habitat that is suitable to support nesting birds. As discussed, most birds are protected by the MBTA. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, the following is recommended:

- To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist shall conduct pre-construction Nesting Bird Surveys (NBS) prior to Project-related disturbance to suitable nesting areas to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

3.2 Jurisdictional Waters

No intermittent or ephemeral dry washes that would meet the definitions of State and federal jurisdictional waters as defined by Section 1600 of the State of California Fish and Game Code (FGC) or “Waters of the United States” (WoUS) as defined by Section 404 of the Clean Water Act (CWA) occur on the reservoir site. Therefore, no regulatory permits from these agencies may be required for this Project.

3.3 *Land Use Designations*

The Project is within the CVMSHCP boundary. The proposed 1.23-acre reservoir site are entirely outside any Conservation Areas (Figure 4) and will not impact any Biological Corridors and Linkages or Essential Ecological Processes. Finally, the project is not adjacent to a Conservation Area. Therefore, no conservation or avoidance measures are expected, and the Project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.

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Table 2
CNDDDB Species
Occurrence Potential

Table 2. CNDDDB Species and Habitats Documented Within the Desert Hot Springs, Seven Palms Valley, Palm Springs and Cathedral City USGS 7.5-minute Quadrangles

Scientific Name	Common Name	Listing Status	Other Lists	Habitat	Occurrence Potential
<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley milk-vetch	Endangered/ None	G5T1; S1; CNPS: 1B.2	Sonoran Desert scrub, desert dunes. Sandy flats, washes, outwash fans, sometimes on dunes. 35-695 m.	There is no suitable habitat within the Project Area. Occurrence potential is zero .
<i>Athene cucularia</i>	burrowing owl	None/ None	G4; S3; CDFW: SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	There is suitable habitat for this species within the Project area. However, the result of protocol BUOW surveys conducted in 2020 was that no BUOW or sign was observed in the Project area. Therefore, BUOW are considered absent from the Project site at the time of survey. Occurrence potential is low .
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	None/ None	G5T34; S3S4; CDFW: SSC	Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Some marginally suitable habitat for this species is present within the Project area. Occurrence potential is low .
<i>Crotalus ruber</i>	red-diamond rattlesnake	None/ None	G4; S3; CDFW: SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No suitable habitat for this species exists within the Project area. Occurrence potential is low .
Desert Fan Palm Oasis Woodland	Desert Fan Palm Oasis Woodland	None/ None	G3; S3.2		This habitat is absent from the Project area.
<i>Euphorbia arizonica</i>	Arizona spurge	None/ None	G5; S3; CNPS: 2B.3	Sonoran Desert scrub. Sandy soils. 150-900 m.	There is no suitable habitat within the Project Area. Occurrence potential is zero .
<i>Falco mexicanus</i>	prairie falcon	None/ None	G5; S4; CDFW: WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	No suitable nesting habitat (i.e. cliffs) exists within the Project area. Further, the small size and disturbance level makes it unlikely to be utilized for hunting. Occurrence potential is low .
<i>Gopherus agassizii</i>	desert tortoise	Threatened/ Threatened	G3; S2S3	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat.	Although the Project area is disturbed, some marginally suitable habitat for this species is present within the Project area. The result of protocol desert tortoise surveys conducted 2020 were negative for this species. Therefore, this species is considered absent from the Project.

<i>Scientific Name</i>	Common Name	Listing Status	Other Lists	Habitat	Occurrence Potential
<i>Linanthus maculatus</i> ssp. <i>Maculatus</i>	Little San Bernardino Mtns. linanthus	None/ None	G2T2; S2; CNPS: 1B.2	Desert dunes, Sonoran Desert scrub, Mojavean Desert scrub, Joshua tree woodland. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. 135-1220 m.	There is no suitable habitat within the Project site. Occurrence potential is zero .
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/ None	G5T3T4; S3S4; CDFW: SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	No suitable habitat for this species exists within the Project area. Occurrence potential is zero .
<i>Ovis canadensis nelsoni</i>	desert bighorn sheep	None/ None	G4T4; S3; CDFW: FP	Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage.	No suitable habitat for this species exists within the Project area. Occurrence potential is zero .
<i>Selaginella eremophila</i>	desert spike-moss	None/ None	G4; S2S3; CNPS: 2B.2	Sonoran Desert scrub, chaparral. Shaded sites, gravelly soils; crevices or among rocks. 225-1570 m.	The environmental requirements for this species are absent from the Project area. Occurrence potential is low .
<i>Streptanthus campestris</i>	southern jewelflower	None/ None	G3; S3; CNPS: 1B.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Open, rocky areas. 605-2590 m.	The Project area is outside the known elevation range for this species and the habitats this species is associated with are not present within the Project area. Occurrence potential is zero .
<i>Toxostoma lecontei</i>	Le Conte's thrasher	None/ None	G4; S3; CDFW: SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Some moderately-suitable habitat for this species is present within the Project site. Occurrence potential is low .
<i>Uma inornate</i>	Coachella Valley fringe-toed lizard	Threatened/ Endangered	G1Q; S1	Limited to sandy areas in the Coachella Valley, Riverside County. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely-spaced desert shrubs.	No suitable habitat for this species exists within the Project area. Occurrence potential is low .

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: “It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird.”

State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Global Rankings (Species or Natural Community Level):

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 = Secure – Common; widespread and abundant.

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank) attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa*. The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.

S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.

S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.

S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.

S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.

1B = Plants rare, threatened, or endangered in California and elsewhere.

2A = Plants presumed extirpated in California, but common elsewhere.

2B = Plants rare, threatened, or endangered in California, but more common elsewhere.

3 = Plants about which more information is needed; a review list.

4 = Plants of limited distribution; a watch list.

Threat Ranks:

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

FIGURES



SOURCE: Google Earth

FIGURE 1



Regional Location
 MSWD West Valley Water Reclamation Program





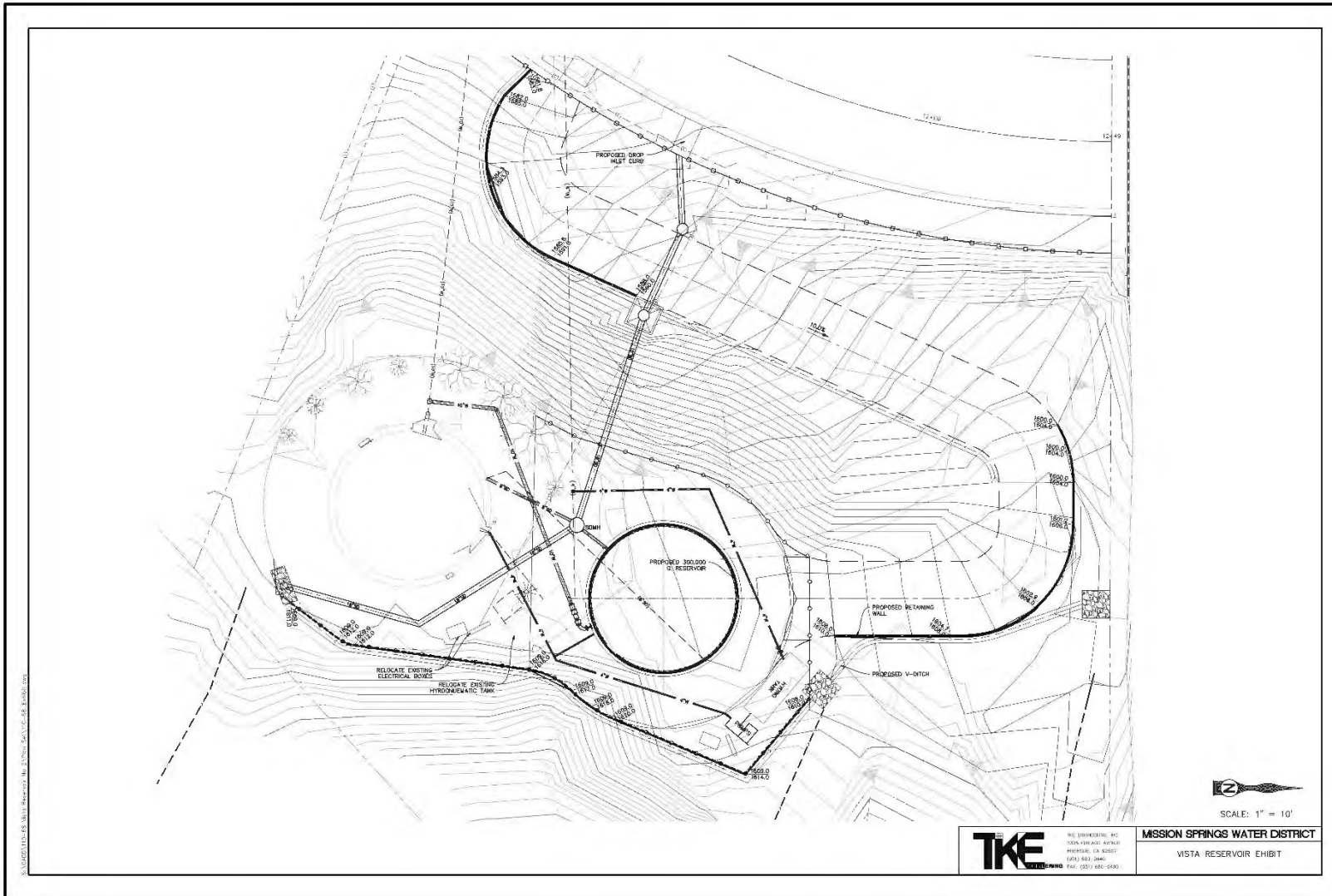
SOURCE: Google Earth

FIGURE 2



MSWD Site Location
 MSWD West Valley Water Reclamation Program





SOURCE: Design Engineers TKE

FIGURE 3a



Site Plan

MSWD West Valley Water Reclamation Program



**SITE
PHOTOGRAPHS**



Photo 1. Looking north at the existing reservoir and access road.



Photo 2. Looking north at existing parking area and general area for the proposed reservoir.



Photo 3. Looking east at the northern edge of the existing reservoir tank and the general location of the new tank.



Photo 4. Looking east at the general location of the new tank.



Photo 5. Looking southwest at the general location of the new tank.



Photo 6. Looking south at the general location of the new tank.

**Appendix A –
Regulatory Framework**

REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The purpose of the Clean Water Act (CWA) of 1977 is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into “waters of the United States” without a permit from the United States Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 Code of Federal Regulations [CFR] 328.3 7b). The U.S. Environmental Protection Agency (EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; in California this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

Federal Endangered Species Act (ESA)

The federal Endangered Species Act (ESA) of 1973 protects plants and wildlife that are listed by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA (USA) prohibits the taking of endangered wildlife, where taking is defined as any effort to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 United States Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action will not jeopardize the continued existence of the species. The ESA specifies that the USFWS designate habitat for a species at the time of its listing in which are found the physical or biological features “essential to the conservation of the species,” or which may require “special Management consideration or protection...” (16 USC § 1533[a][3].2; 16 USC § 1532[a]). This designated Critical Habitat is then afforded the same protection under the ESA as individuals of the species itself, requiring issuance of an Incidental Take Permit prior to any activity that results in “the destruction or adverse modification of habitat determined to be critical” (16 USC § 1536[a][2]).

Interagency Consultation and Biological Assessments

Section 7 of ESA provides a means for authorizing the “take” of threatened or endangered species by federal agencies, and applies to actions that are conducted, permitted, or funded by a federal agency. The statute requires federal agencies to consult with the USFWS or National Marine Fisheries Service (NMFS), as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. If a Proposed Project “may affect” a listed species or destroy or modify critical

habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the potential effect.

Habitat Conservation Plans

Section 10 of the federal ESA requires the acquisition of an Incidental Take Permit (ITP) from the USFWS by non-federal landowners for activities that might incidentally harm (or “take”) endangered or threatened wildlife on their land. To obtain a permit, an applicant must develop a Habitat Conservation Plan that is designed to offset any harmful impacts the proposed activity might have on the species.

Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)

The CVMSHCP is a regional multi-agency conservation plan that provides for the long-term conservation of approximately 240,000 acres of open space and 27 plant and animal species in the Coachella Valley. The entire City of Bermuda Dunes lies within the CVMSHCP area. The stated overall goal of the CVMSHCP is, “... to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth.” The CVMSHCP balances environmental protection and economic development objectives in the plan area and simplifies compliance with endangered species laws.

The Plan is subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as Conservation Areas that serve as natural habitat for covered species. These areas are identified as Core, Essential, or Other Conserved Habitat for special-status plant, invertebrate, amphibian, reptile, bird, and mammal species, Essential Ecological Process Areas, and Biological Corridors and Linkages. For each Conservation Area, Conservation Objectives and required measures are articulated for conserving Core Habitat for covered species, Essential Ecological Processes necessary to maintain habitat viability, Biological Corridors and Linkages as needed, and the less common Conserved Natural Communities.

Conservation Goals are managed within the Conservation Areas as a Reserve System. The Conservation Goals of the CVMSHCP Reserve System are:

- Represent native ecosystem types or natural communities across their natural range of variation in a system of conserved areas.
- Maintain or restore self-sustaining populations or metapopulations of the species included in the Plan to ensure permanent Conservation so that Take Authorization can be obtained for currently Listed Species (animal species) and Non-listed Species can be covered in case they are listed in the future.
- Sustain ecological and evolutionary processes necessary to maintain the functionality of the conserved natural communities and Habitats for the species included in the Plan.
- Maximize connectivity among populations and avoid Habitat fragmentation within Conservation Areas to conserve biological diversity, ecological balance, and connected populations of Covered Species.
- Minimize adverse impacts from OHV use, illegal dumping, edge effects, exotic species, and other disturbances in accordance with the Management and Monitoring Programs.
- Manage the Conservation Areas adaptively to be responsive to short-term and long-term environmental change and new science.

Under the CVMSHCP, a Take Authorization, except for three of the covered species, is allowed for covered activities in accordance with the federal Endangered Species Act (ESA) and the California Natural Community Conservation Planning Act. Covered activities include development permitted or approved by

local permittees, which includes new Projects approved pursuant to county and city general plans. Take activities are limited within Conservation Areas.

Mitigation for the impacts of development on the covered species and their habitats is through payment of a fee to the City of Coachella which is in turn used by the Coachella Valley Conservation Commission to minimize and mitigate impacts of the Taking and provide for conservation of the covered and non-covered species through the acquisition and maintenance of habitat.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661 to 667e et seq.) applies to any federal Project where any body of water is impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with the USFWS and the appropriate state wildlife agency.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (The Eagle Act) (1940), amended in 1962, was originally implemented for the protection of bald eagles (*Haliaeetus leucocephalus*). In 1962, Congress amended the Eagle Act to cover golden eagles (*Aquila chrysaetos*), a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. This act makes it illegal to import, export, take (molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or part thereof. The golden eagle, however, is accorded somewhat lighter protection under the Eagle Act than that of the bald eagle.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 implements international treaties between the United States and other nations created to protect migratory birds, any of their parts, eggs, and nests from activities, such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredated birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code (CFGC).

Executive Orders (EO)

Invasive Species – EO 13112 (1999): Issued on February 3, 1999, promotes the prevention and introduction of invasive species and provides for their control and minimizes the economic, ecological, and human health impacts that invasive species cause through the creation of the Invasive Species Council and Invasive Species Management Plan.

Migratory Bird – EO 13186 (2001): Issued on January 10, 2001, promotes the conservation of migratory birds and their habitats and directs federal agencies to implement the Migratory Bird Treaty Act. Protection and Enhancement of Environmental Quality—EO 11514 (1970a), issued on March 5, 1970, supports the purpose and policies of the National Environmental Policy Act (NEPA) and directs federal agencies to take measures to meet national environmental goals.

Migratory Bird Treaty Reform Act

The Migratory Bird Treaty Reform Act (Division E, Title I, Section 143 of the Consolidated Appropriations Act, 2005, PL 108–447) amends the Migratory Bird Treaty Act (16 U.S.C. Sections 703 to 712) such that nonnative birds or birds that have been introduced by humans to the United States or its territories are excluded from protection under the Act. It defines a native migratory bird as a species present in the United States and its territories as a result of natural biological or ecological processes. This list excluded two additional species commonly observed in the United States, the rock pigeon (*Columba livia*) and domestic goose (*Anser domesticus*).

Birds of Conservation Concern

Birds of Conservation Concern (BCC) is a USFWS list of bird species identified to have the highest conservation priority, and with the potential for becoming candidates for listing as federally threatened or endangered. The chief legal authority for BCC is the Fish and Wildlife Conservation Act of 1980 (FWCA). Other authorities include the FESA, the Fish and Wildlife Act of 1956, and the Department of the Interior U.S Code (16 U.S.C. § 701). The 1988 amendment to the FWCA (Public Law 100-653, Title VIII) requires the Secretary of the Interior, through the USFWS, to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973” (USFWS, 2008a).

State Regulations

California Fish and Game Code Sections 1600 through 1606 of the CFGC

This section requires that a Streambed Alteration Application be submitted to the CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the Department and the applicant is the Streambed Alteration Agreement. Often, Projects that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

California Endangered Species Act

The California Endangered Species Act (CESA) (Sections 2050 to 2085) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats by protecting “all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation.” Animal species are listed by the CDFW as threatened or endangered, and plants are listed as rare, threatened, or endangered. However, only those plant species listed as threatened or endangered receive protection under the California ESA.

CESA mandates that state agencies do not approve a Project that would jeopardize the continued existence of these species if reasonable and prudent alternatives are available that would avoid a jeopardy finding. There are no state agency consultation procedures under the California ESA. For Projects that would affect a species that is federally and State listed, compliance with ESA satisfies the California ESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the California ESA under Section 2080.1. For Projects that would result in

take of a species that is state listed only, the Project sponsor must apply for a take permit, in accordance with Section 2081(b).

Fully Protected Species

Four sections of the California Fish and Game Code (CFGF) list 37 fully protected species (CFGF Sections 3511, 4700, 5050, and 5515). These sections prohibit take or possession "at any time" of the species listed, with few exceptions, and state that "no provision of this code or any other law will be construed to authorize the issuance of permits or licenses to 'take' the species," and that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession.

Bird Nesting Protections

Bird nesting protections (Sections 3503, 3503.5, 3511, and 3513) in the CFGF include the following:

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), or Strigiformes (owls).
- Section 3511 prohibits the take or possession of fully protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.

Native Plant Protection Act

The Native Plant Protect Act (NPPA) (1977) (CFGF Sections 1900-1913) was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Game Commission has the authority to designate native plants as endangered or rare and to protect endangered and rare plants from take. CESA (CFGF 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.

**Appendix B – USFWS
IPaC List
&
CNDDDB Element List**

IPaC

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional **site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.**

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Riverside County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

<http://www.fws.gov/carlsbad/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are not shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME

STATUS

Least Bell's Vireo *Vireo bellii pusillus* **Endangered**
 Wherever found
 There is **final** critical habitat for this species. The location of the critical habitat is not available.
<https://ecos.fws.gov/ecp/species/5945>

Southwestern Willow Flycatcher *Empidonax traillii extimus* **Endangered**
 Wherever found
 There is **final** critical habitat for this species. The location of the critical habitat is not available.
<https://ecos.fws.gov/ecp/species/6749>

Reptiles

NAME	STATUS
Coachella Valley Fringe-toed Lizard <i>Uma inornata</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise <i>Gopherus agassizii</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/4481	Threatened

Flowering Plants

NAME	STATUS
Coachella Valley Milk-vetch <i>Astragalus lentiginosus</i> var. <i>cochellae</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7426	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
 BREEDING SEASON IS INDICATED
 FOR A BIRD ON YOUR LIST, THE
 BIRD MAY BREED IN YOUR
 PROJECT AREA SOMETIME WITHIN
 THE TIMEFRAME SPECIFIED,
 WHICH IS A VERY LIBERAL
 ESTIMATE OF THE DATES INSIDE
 WHICH THE BIRD BREEDS
 ACROSS ITS ENTIRE RANGE.
 "BREEDS ELSEWHERE" INDICATES

Costa's Hummingbird *Calypte costae*

Breeds Jan 15 to Jun 10

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9470>

Lawrence's Goldfinch *Carduelis lawrencei*

Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9464>

Rufous Hummingbird *selasphorus rufus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures or permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting

point for identifying what birds of concern have the potential to be in your project area, when they might be there and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



United States Department of the Interior



FISH AND WILDLIFE SERVICE
 Carlsbad Fish And Wildlife Office
 2177 Salk Avenue - Suite 250
 Carlsbad, CA 92008-7385
 Phone: (760) 431-9440 Fax: (760) 431-5901
<http://www.fws.gov/carlsbad/>

In Reply Refer To:

January 04, 2021

Consultation Code: 08ECAR00-2021-SLI-0447

Event Code: 08ECAR00-2021-E-00989

Project Name: MSWD - Vista Reservoir

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2021-SLI-0447

Event Code: 08ECAR00-2021-E-00989

Project Name: MSWD - Vista Reservoir

Project Type: WATER SUPPLY / DELIVERY

Project Description: New Water Reservoir

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.982882450000005,-116.49332377869601,14z>



Counties: Riverside County, California

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Coachella Valley Fringe-toed Lizard <i>Uma inornata</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2069	Threatened
Desert Tortoise <i>Gopherus agassizii</i> Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

Flowering Plants

NAME	STATUS
Coachella Valley Milk-vetch <i>Astragalus lentiginosus var. coachellae</i>	Endangered
There is final critical habitat for this species. The location of the critical habitat is not available.	
Species profile: https://ecos.fws.gov/ecp/species/7426	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad> IS <(Seven Palms Valley (3311684))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Astragalus lentiginosus var. coachellae</i> Coachella Valley milk-vetch	PDFAB0FB97	Endangered	None	G5T1	S1	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Chaetodipus fallax pallidus</i> pallid San Diego pocket mouse	AMAFD05032	None	None	G5T34	S3S4	SSC
<i>Crotalus ruber</i> red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
<i>Desert Fan Palm Oasis Woodland</i> Desert Fan Palm Oasis Woodland	CTT62300CA	None	None	G3	S3.2	
<i>Euphorbia arizonica</i> Arizona spurge	PDEUP0D060	None	None	G5	S3	2B.3
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Gopherus agassizii</i> desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	
<i>Linanthus maculatus ssp. maculatus</i> Little San Bernardino Mtns. linanthus	PDPLM041Y1	None	None	G2T2	S2	1B.2
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
<i>Ovis canadensis nelsoni</i> desert bighorn sheep	AMALE04013	None	None	G4T4	S3	FP
<i>Selaginella eremophila</i> desert spike-moss	PPSEL010G0	None	None	G4	S2S3	2B.2
<i>Toxostoma lecontei</i> Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	ARACF15010	Threatened	Endangered	G1Q	S1	
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

Record Count: 15

APPENDIX 3

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

**MISSION SPRINGS WATER DISTRICT
VISTA RESERVOIR PROJECT**

**Assessor's Parcel No. 638-233-005
City of Desert Hot Springs, Riverside County, California**

For Submittal to:

Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

Prepared for:

Tom Dodson and Associates
2150 North Arrowhead Avenue
San Bernardino, CA 92405

Prepared by:

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

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

February 9, 2021
CRM TECH Contract No. 3655

Title: Historical/Archaeological Resources Survey Report: Mission Springs Water District Vista Reservoir Project, Assessor's Parcel No. 638-233-005, City of Desert Hot Springs, Riverside County, California

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

Consulting Firm: CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: February 9, 2021

For Submittal to: Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240
(760) 329-6448

Prepared for: Kaitlyn Dodson-Hamilton
Tom Dodson and Associates
2150 North Arrowhead Avenue
San Bernardino, CA 92405
(909) 882-3612

USGS Quadrangle: Seven Palms Valley, Calif., 7.5' quadrangle; Section 19, T2S R5E, San Bernardino Baseline and Meridian

Project Size: Approximately 1.23 acres

Keywords: Northwestern Coachella Valley, Colorado Desert region; Phase I historical/archaeological resources survey; steel water reservoir built in 1966; no "historical resources" under CEQA

MANAGEMENT SUMMARY

Between August 2020 and February 2021, at the request of Tom Dodson and Associates, CRM TECH performed a cultural resources study on an existing water reservoir site in the City of Desert Hot Springs, Riverside County, California. The subject property of the study, Assessor's Parcel No. 638-233-005, consist of approximately 1.23 acres in total and is located at the northern end of Valencia Drive, in the southeast quarter of Section 19, T2S R5E, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the proposed addition of a new 300,000-gallon reservoir to the site. Other associated improvements to the site will include the construction of a new access road, a retaining wall, and a wrought iron fence around the perimeters as well as hillside stabilization, a stormwater management system, and relocation of the existing hydropneumatics station and electrical cabinet. The Mission Springs Water District (MSWD), 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 MSWD 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, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey.

The research results indicate that the existing steel reservoir in the project area dates to 1966 and therefore meets the age threshold to be considered historical in origin (i.e., more than 50 years of age). The reservoir was recorded into the California Historical Resources Inventory as a site and is designated temporarily as CRM TECH 3655-1H, pending the assignment of an official site number. As a late-historic-period infrastructure component of standard design and construction, the reservoir is utilitarian in character and demonstrates no notable historical, architectural, archaeological, engineering, artistic, or aesthetic merits. As such, it does not appear to meet any of the criteria for listing in the California Register of Historical Resources and does not qualify as a "historical resource" under CEQA provisions.

No other potential "historical resources" were encountered within or adjacent to the project area. Based on these findings, CRM TECH recommends to the MSWD a finding of *No Impact* regarding cultural resources. No further cultural resources investigation is recommended for the 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 in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between August 2020 and February 2021, at the request of Tom Dodson and Associates, CRM TECH performed a cultural resources study on an existing water reservoir site in the City of Desert Hot Springs, Riverside County, California (Fig. 1). The subject property of the study, Assessor’s Parcel No. 638-233-005, consist of approximately 1.23 acres in total and is located at the northern end of Valencia Drive, in the southeast quarter of Section 19, T2S R5E, San Bernardino Baseline and Meridian (Figs. 2, 3).

The study is part of the environmental review process for the proposed addition of a new 300,000-gallon reservoir to the site. Other associated improvements to the site will include the construction of a new access road, a retaining wall, and a wrought iron fence around the perimeters as well as hillside stabilization, a stormwater management system, and relocation of the existing hydropneumatics station and electrical cabinet. The Mission Springs Water District (MSWD), 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 MSWD 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, pursued historical background research, contacted Native American representatives, 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.

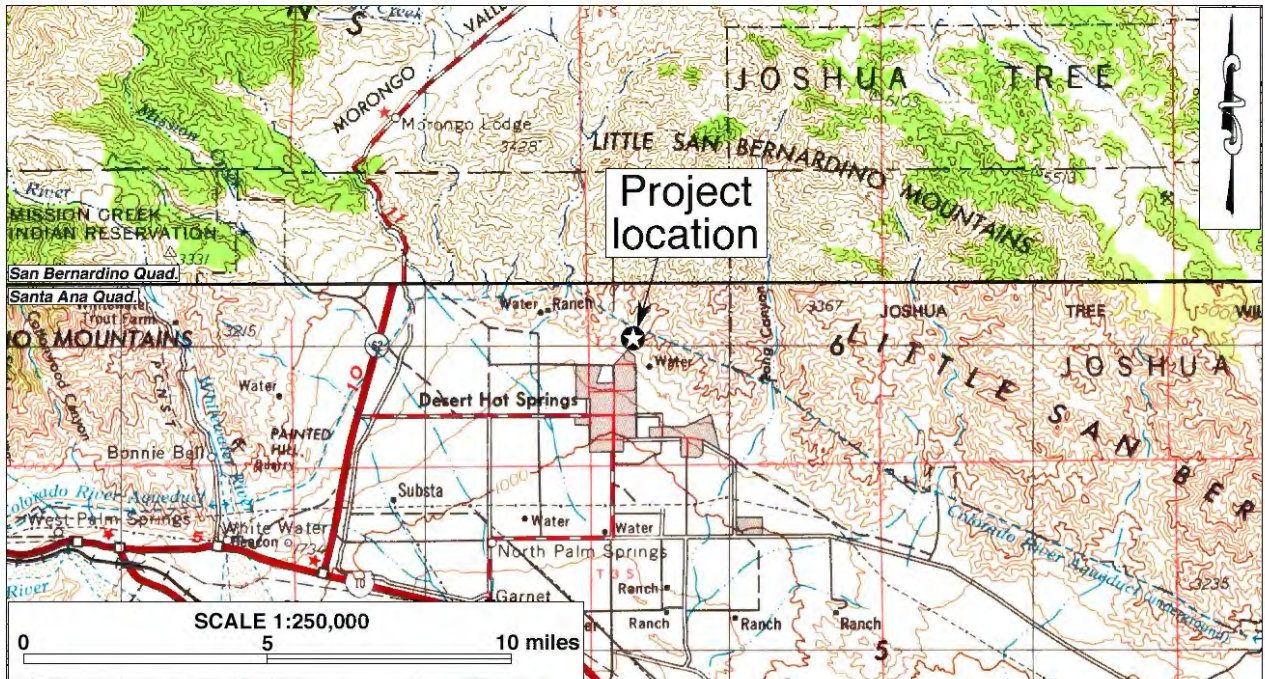


Figure 1. Project vicinity. (Based on USGS San Bernardino and Santa Ana, Calif., 120’x60’ quadrangles [USGS 1969; 1979])

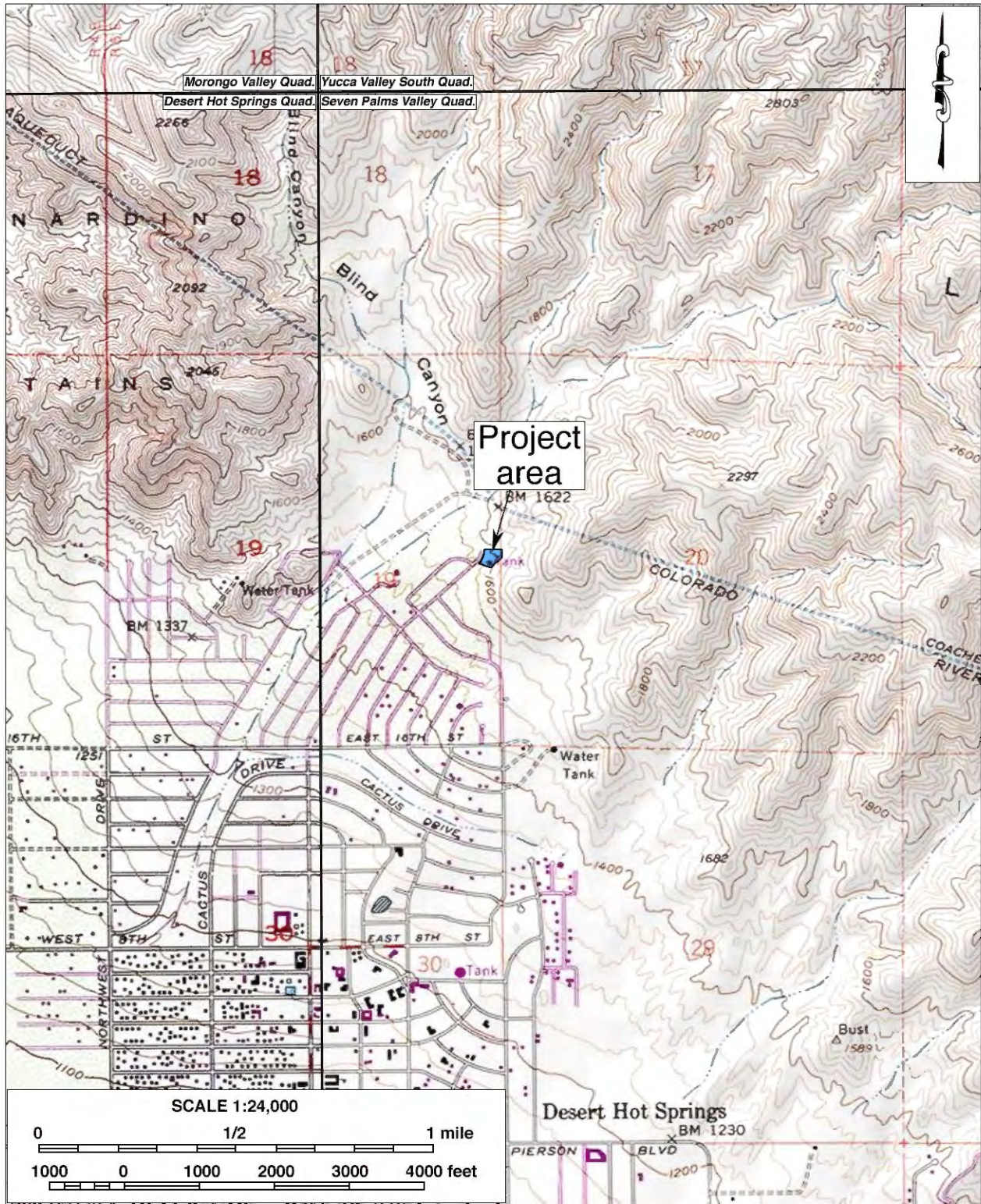


Figure 2. Project area. (Based on USGS Desert Hot Springs, Morongo Valley, Seven Palms Valley, and Yucca Valley North, Calif., 7.5' quadrangles [USGS 1978a; 1978b; 1994a; 1994b])



Figure 3. Aerial view of the project area.

SETTING

CURRENT NATURAL SETTING

The City of Desert Hot Springs is situated near the northwestern end of the Coachella Valley, a northwest-southeast trending desert valley that constitutes the western end of the Colorado Desert. Dictated by this geographic setting, the climate and environment of the 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 freezing in winter. Average annual precipitation is less than five inches, and the average annual evaporation rate exceeds three feet.

The project area comprises an irregularly shaped parcel of land on the northern tip of a residential neighborhood, near the base of the foothills of the Little San Bernardino Mountains (Figs. 2, 3). Elevations in the project area range approximately from 1,575 to 1,635 feet above mean sea level, inclining generally to the east. The terrain is relatively level in the northern portion but features gentle to steep slopes in the southern portion (Fig. 4). Native soils in the vicinity typically consist of medium- to coarse-grained sands mixed with large rocks, small boulders, and a significant amount of decomposing granite.

The ground surface in the project area has been extensively disturbed by past construction activities associated with the existing 300,000-gallon water tank on the property (known as Vista Reservoir), an accompanying access road, and the adjacent segment of Valencia Drive to the west (Figs. 3, 4). Vegetation in the project area includes a mix of native plants, such as creosote bush, brittlebush, and cholla cactus, and invasive weeds, such as Russian thistle and foxtail, along with a few landscaping trees.



Figure 4. Overview of the project area. (Photograph taken on December 14, 2020; view to the southeast)

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 brown and buff ware ceramics were introduced into the region.

The shores of Holocene Lake Cahuilla, during times of its presence, attracted much settlement and resource procurement; but in times of the lake’s desiccation around 1700, according to Schaefer (1994:66), the Native people moved away from its receding shores towards rivers, streams, and mountains. Numerous archaeological sites dating to this time period have been identified along the shoreline of Holocene Lake Cahuilla. Testing and mitigative excavations at these sites have recovered brown and buff ware ceramics, a variety of groundstone and projectile point types, ornaments, and cremations.

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 Takic-speaking Cahuilla are generally divided by anthropologists into three groups, according to their geographic setting: the Pass Cahuilla of the San Geronio 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). The following ethnohistoric discussion is based primarily on 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. 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, gathering food, or utilizing other necessary resources. They interacted with other clans through trade, intermarriage, and ceremonies.

The Cahuilla people were primarily hunters and gatherers who exploited 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. Once the lake had desiccated, they utilized the available terrestrial resources. They also migrated to the higher elevations of the nearby mountains to take advantage of the resources and cooler temperatures available in that environment.

The Cahuilla collected seeds, roots, wild fruits and berries, acorns, wild onions, piñon nuts, and mesquite and screw beans. Common game animals included deer, antelope, big horn sheep, rabbits, wood rats and, when Holocene Lake Cahuilla was present, fish and waterfowls. The Cahuilla hunted with throwing sticks, clubs, nets, traps, snares, as well as bows and arrow (Bean 1978; CSRI 2002). Common tools and utensils 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 available material as well as exotic material 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.*).

Population data prior to European contact is almost impossible to obtain, but estimates range from 3,600 to as high as 10,000 persons. During the 19th century, however, 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 Morongo, Agua Caliente, Cabazon, Torres Martinez, and Augustine.

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). Then, 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 present-day City of Desert Hot Springs is among the communities that were largely created by the Coachella Valley’s resort industry. Although sporadic settlement took place in the vicinity as early as 1908, the city owes much of its early growth to the abundance of hot mineral water along the San Andreas fault line. L.W. Coffee, who subdivided the Desert Hot Springs townsite in 1933, is also credited with the first successful development of the hot springs for commercial use (Gunther 1984:151), as discussed further below. Advertised in the early and mid-20th century primarily for its potential for health spas and convalescent homes, Desert Hot Springs saw sufficient growth by 1944 to warrant the establishment of a post office. After a further growth spurt during the post-WWII boom, Desert Hot Springs incorporated as a city in 1963.

RESEARCH METHODS

RECORDS SEARCH

The historical/archaeological resources records search for this study was conducted by the Eastern Information Center (EIC) of the California Historical Resources Information System on December 11, 2020. Located on the campus of University of California, Riverside, the EIC is the State of California’s official cultural resource records repository for the County of Riverside. During the records search, EIC staff members examined the center’s digital maps, records, and databases for previously identified cultural resources and existing cultural resources reports 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 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.

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 and regional history, U.S. General Land Office (GLO) land survey plat maps dated 1856, U.S. Geological Survey (USGS) topographic maps dated 1901-1994, and aerial photographs taken in 1972-2019. The historic maps are accessible at the websites of the USGS and the U.S. Bureau of Land Management, and the aerial photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

SACRED LANDS FILE SEARCH

In order to identify any known Native American cultural resources in or near the project area, on August 17, 2020, 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. The NAHC is the State of California's trustee agency for the protection of "tribal cultural resources," as defined by California Public Resources Code §21074, and is tasked with identifying and cataloging properties of Native American cultural value, including places of special religious, spiritual, or social significance and known graves and cemeteries throughout the state. The response from the NAHC is summarized below and attached to this report in Appendix 2.

FIELD SURVEY

On December 14, 2020, CRM TECH field director Daniel Ballester carried out the intensive-level field survey of the project area. Most of the survey was completed by walking a series of parallel north-south transects at 10-meter (approximately 33-foot) intervals. In the more rugged portions of the project area, such as along the drainages and on the steep slopes, the survey transects were aligned with the natural contours. In this way, the ground surface in the entire project area was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years ago or older). Ground visibility ranged from fair (50%) to excellent (90%) as the vegetation was generally sparse or had been largely cleared.

RESULTS AND FINDINGS

RECORDS SEARCH

According to EIC records, the project area had not been surveyed systematically for cultural resources prior to this study, although an overview study completed in 1978 covered an adjacent tract of land to the east (Fig. 5). No historical/archaeological resources were previously identified within or adjacent to the project boundaries. Within the one-mile scope of the records search, EIC records show a total of 12 previous studies on various tracts of land and linear features (Fig. 5). As a result of these and other similar studies in the vicinity, six historic-period sites have been recorded within the one-mile radius.

The six recorded sites included a 1930s ranch, two structural foundations, the Colorado River Aqueduct, and a segment of Palm Drive. The sixth site represents a portion of the San Andreas Fault, a natural feature that acquired cultural significance during the historic period. No prehistoric (i.e., Native American) cultural resources have been recorded within the scope of the records search. None of the six recorded sites were found in the immediate vicinity of the project area. Therefore, none of them require further consideration during this study.

HISTORICAL RESEARCH

Historical resources consulted for this study suggest that the project area remained unsettled and undeveloped until the existing Vista Reservoir was installed in 1966. In the 1850s, when the U.S. government conducted the first official land surveys in the Coachella Valley, no man-made features

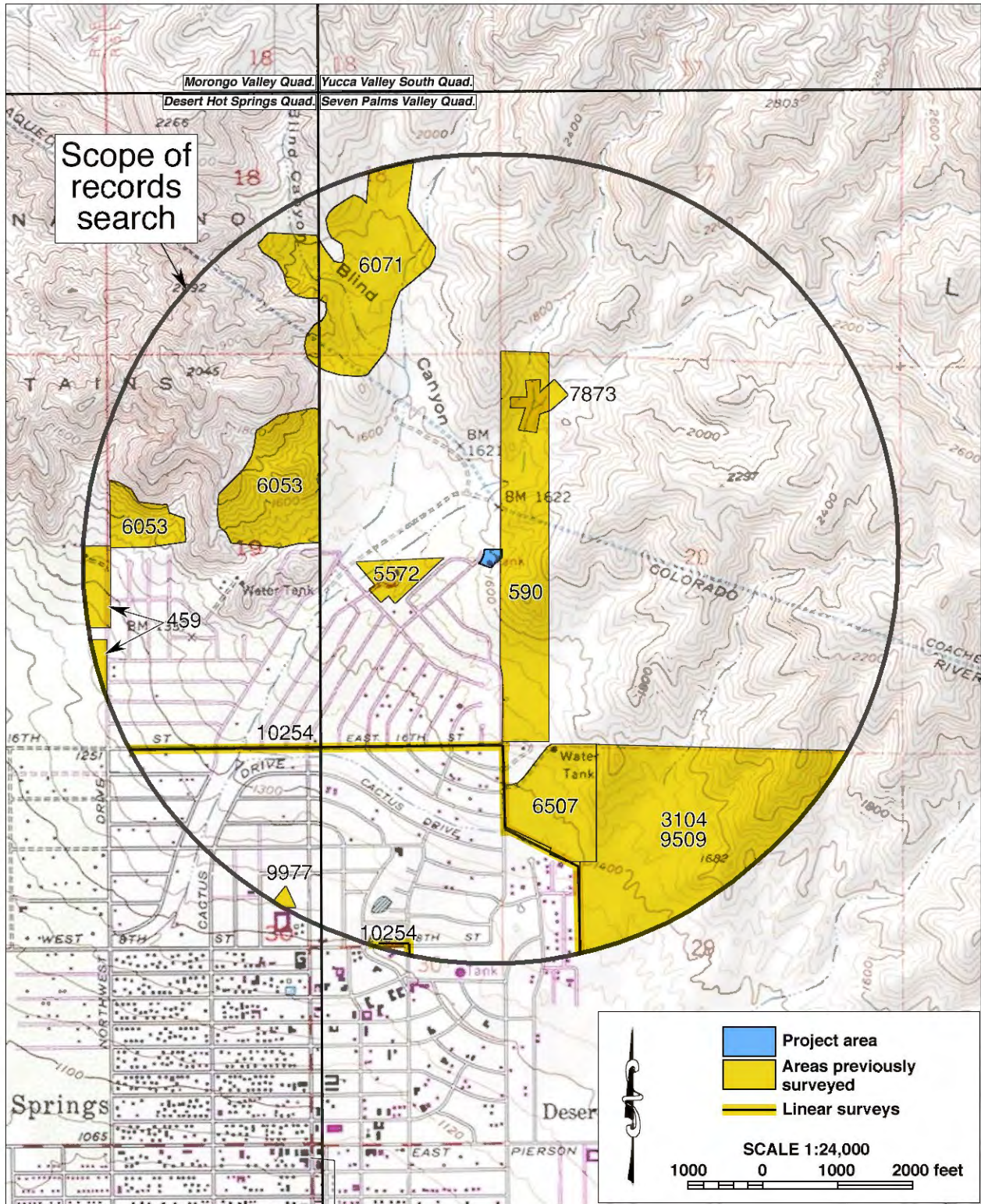


Figure 5. Previous cultural resources studies in the vicinity of the project area, listed by EIC file number. Locations of historical/archaeological sites are not shown as a protective measure.

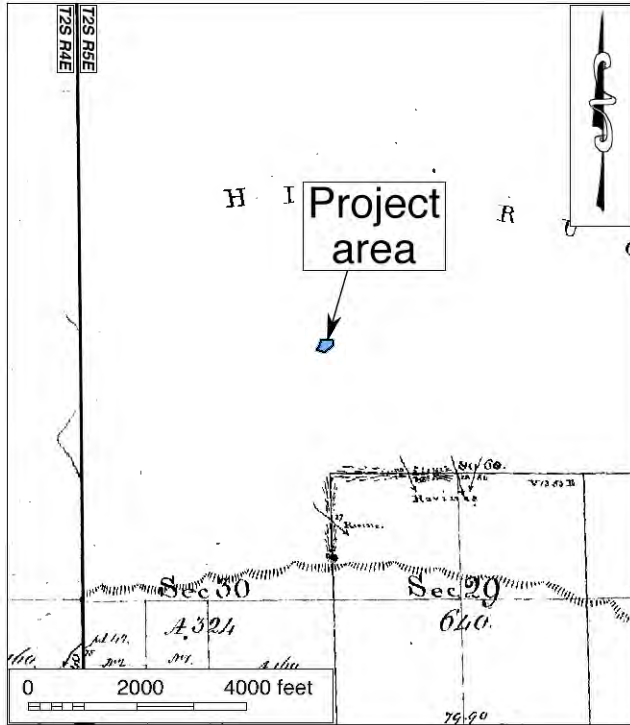


Figure 6. The project area and vicinity in 1855-1856. (Source: GLO 1856a; 1856b)

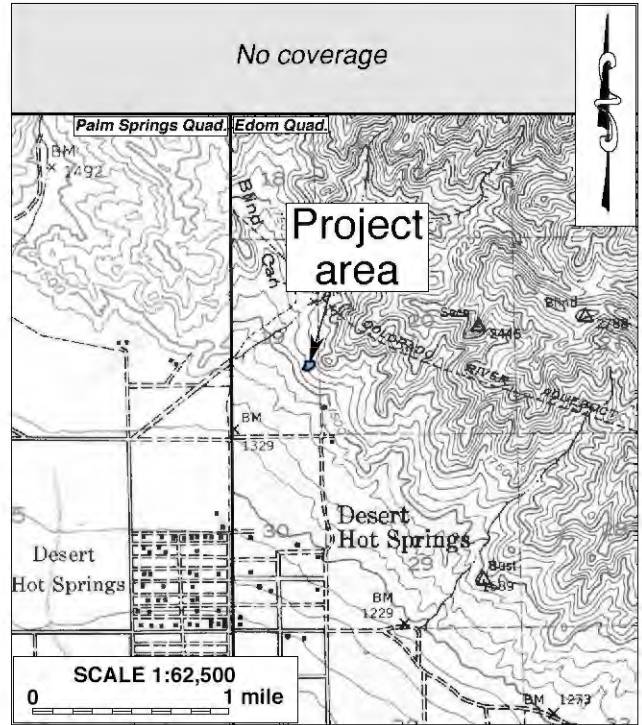


Figure 7. The project area and vicinity in 1940-1941. (Source: USGS 1940; 1941)

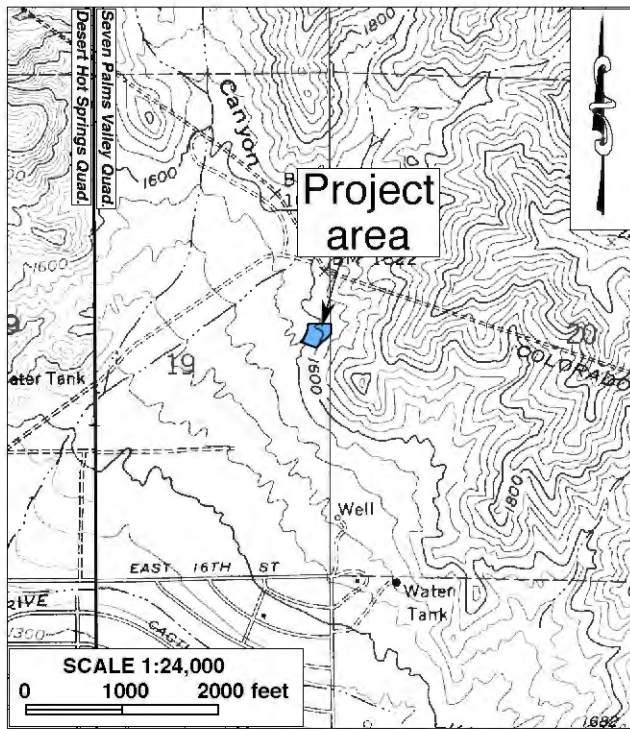


Figure 8. The project area and vicinity in 1951-1958. (Source: USGS 1955; 1958)

were observed in the project vicinity (Fig. 6). By the 1940s-1950s, the town of Desert Hot Springs had gradually taken shape to the south, but the project area remained well beyond the reach of that development at the time, with only a few sporadic buildings and dirt roads nearby, along with the Colorado River Aqueduct, which was built by the Metropolitan Water District of Southern California in the 1930s (Figs. 7, 8).

By 1972, Vista Reservoir had become the first man-made feature to appear in the project area (NETR Online 1972). A dedication plaque on the reservoir indicates that it was built in 1966 by the Southwest Welding and Manufacturing Company of Alhambra, California. Probably the successor to an earlier enterprise in Alhambra under the name of the Southwest Welding and Machine Company, the Southwest Welding and Manufacturing Company was registered in 1928 and is known to have built many similar water tanks in California during the ensuing decades (LACOC 1924; California

Secretary of State n.d.; OpenCorporates.com n.d.). The company was dissolved in 1962 (California Secretary of State n.d.). It is unclear under what circumstances Vista Reservoir, built five years after the dissolution, was credited to the company.

Also by 1972, the residential tracts near the project area had been laid out but little construction had occurred (NETR Online 1972). While the neighborhood nearby was gradually filled with homes over the next few decades, no substantial changes appear to have occurred within the project area since 1972 (NETR Online 1972-2016; Google Earth 1995-2019).

SACRED LANDS FILE SEARCH

In response to CRM TECH's inquiry, the NAHC reports in a letter dated August 18, 2020, that the Sacred Lands File identified no Native American cultural resources in the project vicinity. Noting that the absence of specific information would not necessarily indicate the absence of cultural resources, however, the NAHC recommended that local Native American groups be consulted for further information and provided a referral list of potential contacts. The commission's reply is attached to this report in Appendix 2 for reference by the MSWD in future government-to-government consultations with the pertinent tribal groups.

FIELD SURVEY

The field survey confirms that the existing Vista Reservoir is the only feature in the project area that appears to be of historical or prehistoric origin. The reservoir is a cylindrical-shaped, aboveground steel water tank of standard design and construction. It measures approximately 40 feet in diameter and 32.5 feet in height and has a capacity of 300,000 gallons. In light of its age, the reservoir was recorded into the California Historical Resources Inventory as a site and is designated temporarily as CRM TECH 3655-1H, pending the assignment of an official site number (see App. 3). No other cultural resources, either prehistoric or historical in origin, were encountered within or adjacent to the project area.

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area and to assist the MSWD 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 outlined above, the existing Vista Reservoir, built in 1966, is the only feature of historical or prehistoric origin identified in the project area. The reservoir was recorded during this study for inclusion in the California Historical Resources Inventory, but it does not appear to meet any of the criteria for listing in the California Register of Historical Resources. There is no evidence that this nondescript, utilitarian water reservoir is closely associated with any persons or events of recognized historic significance, nor does it represent an important example of any style, property type, period, region, and method of construction.

The builder of the reservoir, the Southwest Welding and Manufacturing Company, erected numerous similar water tanks in California between the late 1920s and the 1960s, but it is not known to have achieved a special level of distinction among the many competitors in this field, nor does this reservoir appear to stand out as a particularly notable example of its large body of work. Finally, as a late-historic-period infrastructure feature of standard design and construction, the reservoir holds little promise for important historical or archaeological data. Based on these considerations, Vista Reservoir does not appear to qualify as a “historical resource” under CEQA provisions.

CONCLUSION AND RECOMMENDATIONS

CEQA establishes 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.”

In conclusion, the existing Vista Reservoir is more than 50 years of age but does not appear to meet the statutory definition of “historical resources” under CEQA. No other cultural resources, either prehistoric or historical in origin, were encountered within or adjacent to the project area. Therefore, CRM TECH presents the following recommendations to the MSWD:

- The proposed project will not cause a substantial adverse change to any known historical resources.
- No further cultural resources investigation is necessary for the proposed project unless construction plans undergo such changes as to include areas not covered by this study.

- If buried cultural materials are discovered during any earth-moving operations associated with the project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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1958 Map: Seven Palms Valley, Calif. (7.5', 1:24,000); aerial photographs taken in 1956, field-checked in 1958.

1969 Map: San Bernardino, Calif. (1:250,000); 1958 edition revised.

1978a Map: Desert Hot Springs, Calif. (7.5', 1:24,000); 1955 edition photorevised in 1972, photoinspected 1978.

1978b Map: Seven Palms Valley, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1972, photoinspected in 1978.

1979 Map: Santa Ana, Calif. (1:250,000); 1959 edition revised.

1994a Map: Morongo Valley, Calif. (7.5', 1:24,000); 1972 edition with minor revisions.

1994b Map: Yucca Valley South, Calif. (7.5', 1:24,000); 1972 edition with minor revisions.

**APPENDIX 1:
PERSONNEL QUALIFICATIONS**

**PRINCIPAL INVESTIGATOR/HISTORIAN
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/ARCHAEOLOGIST
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/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
RESPONSE FROM
NATIVE AMERICAN HERITAGE COMMISSION

NATIVE AMERICAN HERITAGE COMMISSION

August 18, 2020

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Mission Springs Water District's Vista Reservoir 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
Cultural Resources Analyst

Attachment



CHAIRPERSON
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Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
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Wintun

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William Mungary
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Apache

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Native American Heritage Commission
Native American Contact List
Riverside County
8/18/2020

Item 8.

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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 Mission Springs Water District's Vista Reservoir Project, Riverside County.

**Native American Heritage Commission
Native American Contact List
Riverside County
8/18/2020**

Item 8.

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Mission Springs Water District's Vista Reservoir Project, Riverside County.

APPENDIX 3
CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM
RECORDS FORMS

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # (Pending)
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or # (Assigned by recorder) CRM TECH 3655-1H

P1. Other Identifier: Vista Reservoir
*P2. Location: Not for Publication Unrestricted *a. County Riverside
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Seven Palms Valley, Calif. Date 1978
T2S; R5E; NE 1/4 of NE 1/4 NE 1/4 of Sec 19 ; S.B. B.M.
c. Address N/A City Desert Hot Springs Zip 92240
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 546,806 mE/ 3,760,359 mN
UTM Derivation: USGS Quad GIS Google Earth
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor's Parcel No. 638-233-005; approximately 130 feet east of the northern end of Valencia Drive

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The Vista Reservoir is a cylindrical-shaped, aboveground steel water tank of standard design and construction. It measures approximately 40 feet in diameter and 32.5 feet in height and has a capacity of 300,000 gallons.
*P3b. Resource Attributes: (List attributes and codes) HP11: Engineering structure
*P4. Resources Present: Building Structure Object Site District Element of District
 Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession number): Photo taken on December 14, 2020; view to the southwest
*P6. Date Constructed/Age and Sources: Historic Prehistoric Both
1966
*P7. Owner and Address: Mission Springs Water District, 66575 Second Street, Desert Hot Springs, CA 92240
*P8. Recorded by (Name, affiliation, & address): Daniel Ballester, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324
*P9. Date Recorded: December 14, 2020
*P10. Survey Type: Intensive-level survey for CEQA-compliance purposes

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Daniel Ballester (2021): Historical/Archaeological Resources Survey Report: Mission Springs Water District Vista Reservoir Project, Assessor's Parcel No. 638-233-005, City of Desert Hot Springs, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 3

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) CRM TECH 3655-1H

B1. Historic Name: _____ B2. Common Name: Vista Reservoir
B3. Original Use: Domestic water storage B4. Present Use: Same

*B5. Architectural Style: N/A

*B6. Construction History: (Construction date, alterations, and date of alterations) On-site dedication plaques indicate that Vista Reservoirs was constructed in 1966 by the Southwest Welding and Manufacturing Company of Alhambra, California, and its presence is confirmed by aerial photographs from 1972.

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: Chain-link fence around the perimeter

B9a. Architect: Unknown

b. Builder: Southwest Welding and Manufacturing Company

*B10. Significance: Theme Post-World War II urban utility infrastructure

Area Desert Hot Springs Period of Significance 1945-1970

Property Type Water reservoir Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) There is no evidence that this nondescript, utilitarian water reservoir is closely associated with any persons or events of recognized historic significance, nor does it represent an important example of any style, property type, period, region, and method of construction. The builder of the reservoir, the Southwest Welding and Manufacturing Company, erected numerous similar water tanks in California between the late 1920s and the 1960s, but it is not known to have achieve a special level of distinction among the many competitors in this field, nor does this reservoir appear to stand out as a particularly notable example of its large body of work. Finally, as a late-historic-period infrastructure feature of standard design and construction, the reservoir holds little promise for important historical or archaeological data. Based on these considerations, Vista Reservoir does not appear to meet any of the criteria for listing in the National Register of Historic Places or the California Register of Historical Resources.

B11. Additional Resource Attributes: (List attributes and codes) HP46: Walls/gates/fences

*B12. References: See Item P11 on p. 1.

B13. Remarks: _____

*B14. Evaluator: Bai "Tom" Tang

*Date of Evaluation: February 2021

(Sketch Map with north arrow required.)



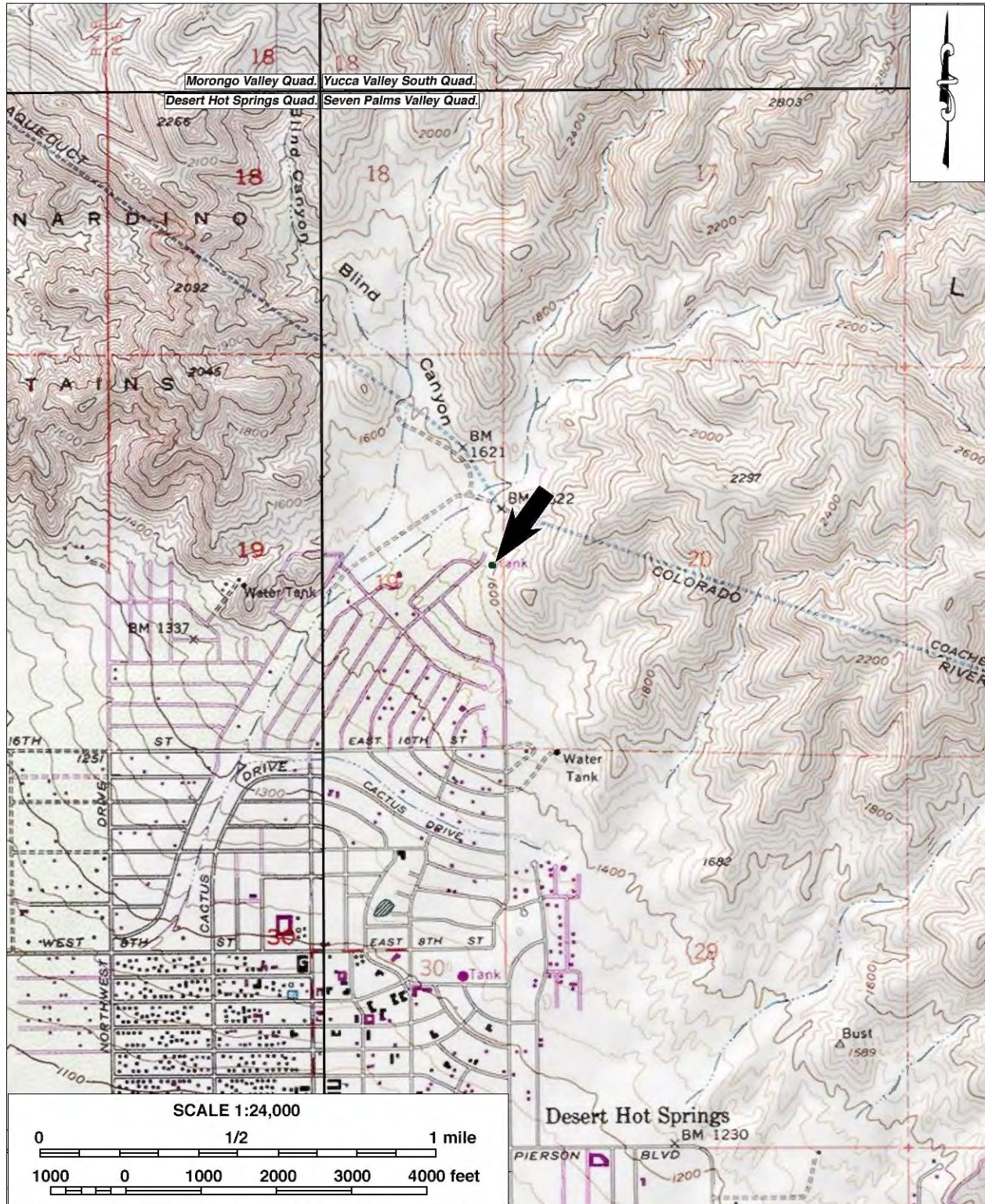
(This space reserved for official comments.)

LOCATION MAP

*Map Name: Desert Hot Springs, Morongo Valley, Seven Palms Valley, and Yucca Valley
North, Calif.

*Scale: 1:24,000

*Date of Map: 1978-1994



APPENDIX 4

GEOTECHNICAL EXPLORATION
MSWD VISTA RESERVOIR TANK SITE
VALENCIA DRIVE, DESERT HOT SPRINGS
COUNTY OF RIVERSIDE, CALIFORNIA

Prepared for

TKE ENGINEERING, INC.

2305 Chicago Avenue
Riverside, California 92563

Project No. 12761.001

September 18, 2020



Leighton Consulting, Inc.

A LEIGHTON GROUP COMPANY



Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

September 18, 2020
Project No. 12761.001

TKE Engineering, Inc.
2305 Chicago Avenue
Riverside, California 92563

Attention: Mr. Steven Ledbetter, PE and/or Ms. Yesenia Diaz



**Subject: Geotechnical Exploration
MSWD Vista Reservoir Tank Site
Valencia Drive, Desert Hot Springs, County of Riverside, California**

In accordance with your authorization and our proposal dated April 29, 2020, we performed a geotechnical exploration for the subject Site. This report presents our findings and provides our geotechnical recommendations for design and construction of the proposed improvements. Based on the results of our exploration, the proposed tank site is generally underlain by dense silty sand soils with varying amounts of gravel and cobbles (Fanglomerate). Based on published geologic maps, the site is located within currently designated County Fault Hazard Zone. From a geotechnical perspective, the constructability of proposed improvements is considered feasible provided the recommendations included in this report are implemented during design and construction phases.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
LEIGHTON CONSULTING, INC.


Simon I. Saïd, GE 2641
Principal Engineer



Robert F. Riha, CEG 1921
Senior Principal Geologist


Distribution: (1) Addressee PDF via email)

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- Appendix B – Results of Geotechnical Laboratory Testing
- Appendix C – Seismic Parameters Output
- Appendix D – GBA Important Information About This Geotechnical Report

1.0 INTRODUCTION

1.1 Site Description

The Vista Reservoir Tank Site is located at the northern terminus of Valencia Drive in the City of Desert Hot Springs (see Figure 1). The site is currently occupied by 30,000-gallon circular steel tank. This overall site is currently a vacant hillside parcel that slopes moderately down to the north and west. Site access is through a locked gate off Valencia Drive, through the driveway to the existing tank. As can be seen on Figure 1, this parcel is bordered by desert hills to the north, east and south, and existing single-family residences to the west.

1.2 Project Description

Based on information provided, we understand that a new 30,000-gallon steel welded tank with 40-foot diameter, will be located approximately 30 feet northeast of the existing tank, along with related auxiliary structures. The pad for the new tank will require a cut into an existing slope along the east side that may require a retaining wall up to 15 feet in height. The design pad grades (Elevation ~1609 feet) will also require up to 4 feet of fill along the west side of the pad (see Figure 2). The proposed tank/reservoir will have a similar diameter as the existing tank (~40 feet) and hydrostatic pressure is expected to be less-than (\leq) 2,000 pounds-per-square-foot.

1.3 Purpose and Scope of Exploration

The purpose of our exploration is to (1) evaluate geotechnical engineering characteristics of the earth materials for the project site, and (2) provide geotechnical recommendations for design and construction of the proposed improvements. As described in our proposal, the scope of our evaluation included the following tasks:

- Desktop Review: Reviewed available in-house and published geologic reports/maps (USGS, CGS, etc.).
- Geotechnical Borings: Drilled, logged and sampled three (3) hollow-stem auger borings within an accessible area of the site to a maximum depth of 25 feet using a truck-mounted drill rig equipped with an 8-inch hollow stem auger. The borings were backfilled with the excavated soils.
- Geotechnical Laboratory testing: Driven “California” ring-lined samples and bulk soil samples will be collected from our borings and transported to our in-house geotechnical laboratory for testing. Tests may include insitu moisture/density, sieve analysis, sand equivalent, expansion potential, maximum dry density/

optimum moisture content, and one corrosivity test (pH and resistivity, chloride and soluble sulfate content).

- **Report Preparation:** Results of this evaluation have been summarized in this report, presenting our findings, conclusions and geotechnical recommendations for the proposed tank and site improvements.

This report does not address the potential for encountering hazardous materials or fault displacement along this site. Important information about limitations of geotechnical reports is presented in Appendix D.

1.4 Field Exploration

Our field exploration consisted of the excavation of three (3) geotechnical borings (LB-1 through LB-3) in accessible areas within project site. Prior to drilling, we located and marked boring locations for coordination with Underground Service Alert (USA) and MSWD personnel. Our field exploration was performed on May 19, 2020. Approximate locations of the borings are depicted on the Boring Location Plan (Figure 2). The exploratory borings were excavated utilizing a truck-mounted, CME 75 drill rig using an 8-inch hollow-stem flight auger. During the drilling operation, bulk and relatively undisturbed samples were obtained from the borings for laboratory testing and evaluation. Sampling of the borings was conducted by an engineer from our office. The collected samples were transported to our laboratory for testing. Borings were backfilled with native soils. The logs of borings are presented in Appendix A.

1.5 Laboratory Testing

Laboratory tests were performed on representative samples to provide a basis for development of geotechnical design parameters. Selected samples were tested to determine the following parameters: insitu moisture/density, sieve analysis, sand equivalent, maximum dry density/ optimum moisture content, and one corrosivity test (pH and resistivity, chloride and soluble sulfate content). The results of our laboratory testing are presented in Appendix B.

2.0 SUMMARY OF GEOTECHNICAL FINDINGS

A summary of our findings from research of pertinent literature, site-specific field exploration, geotechnical laboratory testing and engineering analysis, is discussed in this section.

2.1 Subsurface Conditions

Our field exploration indicates that the subsurface conditions at the tank facility are primarily underlain by minor amounts of artificial fill underlain by dense Fanglomerate which is turn underlain (unconformably) by gneissic and mafic igneous rocks. Detailed descriptions of the earth materials encountered in each boring are provided on the logs of borings in Appendix A.

2.1.1 Artificial Fill

Artificial fill is expected locally in existing utility trenches and pads of existing equipment and previous grading. The fill appears to be generated from onsite sources and generally consist of silty sand (SM) with varying amounts of gravel. The fill is not expected to exceed 5 feet in depth.

2.1.2 Fanglomerate

These dense materials were found in all of our borings and extends to the explored depth of 26 feet. The Fanglomerate (possibly Whitehouse Canyon Fanglomerate) generally consisted of silty sand (SM) with varying amounts of gravel and cobbles (GP-GM). The N-value ranges from 17 to greater than 50 blows per foot. Based on the results of our laboratory testing on representative samples, the Sand Equivalent (SE) for the majority of onsite materials is expected to be greater than 30 and the Expansion Index (EI) is expected to be less than 21.

2.1.3 Gneissic Bedrock

These dense bedrock materials were found in Boring LB-2 and extends to the explored depth of 15.5 feet. The granitic/gneissic bedrock generally recovered as highly weathered silty sand (SM) with varying amounts of gravel and cobbles (GP-GM). The N-value averaged to greater than 50 blows per foot.

2.2 Surface and Groundwater

Groundwater was not encountered in any of our borings to the maximum explored depth of 26 feet BGS. Based on historic data from existing wells in the vicinity of this site, groundwater is not expected to be shallower than 200 feet below existing site grades, and it indicates groundwater to exist at an approximate elevation 1050 msl according to California Water Data Library Well 339628N1165004W001 located approximately 4,000 feet southwest (recorded on December 18, 2019).

2.3 Faulting and Seismicity

The subject site, like the rest of Southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity on this site is movement along the northwest-trending San Andreas Fault. Historically, the San Andreas Fault zone has produced earthquakes in the magnitude range of 7.1Mw to 7.4Mw ('Mw' is the Moment Magnitude as defined by the U.S.G.S). Of all the fault systems in California, the San Andreas Fault is among the most active. Since the recording of seismic events in the mid-19th century, at least 3 major earthquakes have occurred along the San Andreas Fault Zone. Each of these major quakes have produced moderate to severe damage to buildings and roads, and have resulted in several fatalities over this time-period. Hundreds of minor earthquakes (magnitude < 2.9) occur annually in the Coachella Valley. The majority of these earthquakes occur in the bedrock underlying the alluvium unit typically at depths of 3 to 5 miles (5-8 km).

Based on our review of published geologic map (Hart, 2007), the subject site is not included within an Earthquake Fault Zone per the Alquist-Priolo Earthquake Fault Zoning Act. The Mission Creek branch of the San Andreas Fault Zone is located approximately 7,000 feet southwest of the project site. However, the site is located within the Riverside County Zoned Blind Canyon Fault (see Figure 4). A fault or ground rupture can presumably occur anywhere within the mapped zones unless proven otherwise. This geologic hazard exists for similar Water storage facilities in this region and as well as the existing onsite tank.

For the purpose of structural design, seismic coefficients based on the 2019 California Building Code (CBC) are provided in Table 1 below. These seismic coefficients were calculated based on a software program, available on the United States Geological Survey website, which follows the procedures, included in American Society of Civil Engineers (ASCE) Publication ASCE 7-16.

Table 1. 2019 CBC Site Categorization and Seismic Coefficients

Parameters	Proposed Tank Site
Site Longitude (decimal degrees)	-116.4932°
Site Latitude (decimal degrees)	33.9828°
Site Class Definition	C
Mapped Spectral Response Acceleration at 0.2s Period, S_s	2.07
Mapped Spectral Response Acceleration at 1s Period, S_1	0.78
Short Period Site Coefficient at 0.2s Period, F_a	1.2
Long Period Site Coefficient at 1s Period, F_v	1.4
Adjusted Spectral Response Acceleration at 0.2s Period, S_{MS}	2.48
Adjusted Spectral Response Acceleration at 1s Period, S_{M1}	1.09
Design Spectral Response Acceleration at 0.2s Period, S_{DS}	1.65
Design Spectral Response Acceleration at 1s Period, S_{D1}	0.72

The site modified peak ground acceleration PGAM is 1.03g (see Appendix C for further details). Additionally, we performed a probabilistic seismic hazard analysis utilizing the Unified Hazard Map application provided through the USGS website (USGS, 2020). Probabilistic design level events are defined in Table 2 below, along with calculated PHGA for each design-level.

Table 2. Probabilistic Seismic Hazard Analyses

Design Level	Return Period (years)	Definition	Peak Horizontal Ground Acceleration (g)
DBE	475	10% probability of exceedance in 50 years	0.57
UBE	975	5% probability of exceedance in 50 years	0.75
MCE	2475	2% probability of exceedance in 50 years	1.04

2.4 Secondary Seismic Hazards

The potential for secondary hazards such as seiches and tsunamis, landslide, rockfall, and lateral spreading, are considered very low for the project site. Additional, secondary seismic hazards such as ground rupture and liquefaction are discussed below.

2.4.1 Ground Rupture

As indicated in Section 2.3 above, the site is located within a mapped County Earthquake Fault Zone (see Figure 4), with the proposed tank being located approximately 150 feet northeast of a mapped fault. According to County and State guidelines, a fault or ground rupture can presumably occur anywhere within the mapped zones unless proven otherwise. Although no evidence of site faulting was

observed during our field exploration, the evaluation of onsite faulting is beyond the scope of this report.

2.4.2 Dynamic Settlement / Liquefaction

Liquefaction of saturated cohesionless soils can be caused by strong ground motion resulting from earthquakes. Soil liquefaction is a phenomenon in which saturated, cohesionless soils lose their strength due to the build-up of excess pore water pressure during cyclic loading such as that induced by earthquakes. Due to the absence of shallow groundwater, potential for liquefaction is considered non-existent. Furthermore, dynamic settlement can also exist if loose sandy soils are subjected to ground shaking. However, due to the dense nature of underlying materials dynamic dry settlement within the project site is expected to be negligible and not a significant design concern.

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3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 General

The proposed improvements appear feasible from a geotechnical viewpoint provided that the following recommendations are incorporated into the design and construction phases of development. The soils encountered may be considered CalOSHA Type C soils, and sloped excavations will be required to protect workers, if shoring and/or shields are not used. The site is located within a mapped County Earthquake Fault Zone and risk of ground rupture at this site exists according to County guidelines. However, this risk poses similar risk to the existing tank and the evaluation of onsite faulting is beyond the scope of this report.

3.2 Earthwork Considerations

Earthwork associated with the proposed improvements should be performed in accordance with any applicable MSWD specifications, "Standard Specifications for Public Works Construction" (GreenBook, latest edition) and the recommendations included herein.

3.2.1 Excavation Characteristics

Based on the results of our exploratory borings, the onsite soils should generally be relatively easy to moderately difficult to excavate (boulders & gneissic bedrock) with conventional earthmoving excavation equipment. Excavation should be performed in accordance with the project plans, specifications, and all applicable OSHA requirements. The contractor should be responsible for providing the "competent person" required by OSHA standards. Contractors should be advised that sandy soils (such as the existing, onsite soils) could make excavations particularly unsafe, and hence necessary safety precautions should be taken at all times.

3.2.2 Subgrade Preparation/Remedial Grading

The subgrade preparation for the proposed improvements should be as follows:

- **Proposed Tank**– The upper 5 feet (minimum) of existing soils, or 3 feet below bottom of ring foundations (whichever deeper) should be removed and recompacted prior to foundation construction or placement of new fill. This remedial grading is not required if bottom of footings is founded a minimum of 6 feet below existing ground surface or bearing solely on undisturbed Fanglomerate pending verification by the geotechnical consultant. This remedial grading should be performed a minimum of 5 feet beyond the limits of improvements/foundations.

- **Retaining Walls / Auxiliary Structures**– The upper 3 feet (minimum) of existing soils, or 2 feet below bottom of foundations (whichever deeper) should be removed and recompacted prior to foundation construction or placement of new fill. This remedial grading is not required if bottom of footings is founded a minimum of 3 feet below existing ground surface or bearing solely on undisturbed Fonglomerate pending verification by the geotechnical consultant. This remedial grading should be performed a minimum of 3 feet beyond the limits of improvements/foundations.
- **Pavement / Flatwork** – Similarly, for any site pavement or hardscape, the upper 1.5 feet of soils should be removed or scarified and recompacted. Localized of over-excavation may be needed depending on the actual conditions encountered during construction.

After completion of the recommended removal of unsuitable soils and prior to fill placement or foundation construction, the exposed bottom/surface should be scarified to a minimum depth of 8-inches and recompacted to unyielding condition or minimum 90 percent relative compaction per ASTM D1557. Subsequently, all structural fill should be compacted minimum of 90 percent relative compaction.

3.2.3 Pipe Subgrade Preparation

Pipe subgrade soils are expected to consist of relatively medium dense to dense silty sand with varying amounts of gravel. These materials should provide adequate seating and support for any proposed pipelines placed on compacted bedding material. Any oversize particles larger than 3-inches in largest dimension, if any within the subgrade, should be removed from the trench bottom and replaced with compacted uniform bedding materials. Where the subgrade becomes disturbed due to localized seepage or surface water, the contractor should excavate the disturbed soils to a maximum depth of 2 feet and replace with suitable materials to provide a stable bottom. Crushed rock (1/2-inch maximum size) may be used if found necessary to stabilize bottom of trench prior to placing bedding materials.

3.2.4 Trench Backfill

Prior to backfilling trenches, pipes should be bedded in and covered with a uniform, granular material that has a Sand Equivalent (SE) of 30 or greater, and a gradation meeting requirement of the pipe manufacturer and District Standards. A minimum cover of 12 inches of bedding material should be provided above the top of the pipe. Pipe bedding should be water-densified in-place. Some onsite soils (SM) may be too silty to be considered for bedding material.

Native soils are generally considered suitable as backfill materials over the pipe bedding zone provided any cobbles are removed prior to backfilling. These materials should be placed in thin lifts moisture conditioned, as necessary, and mechanically compacted to a minimum of 90 percent relative compaction per ASTM

D 1557 or as required per District standard specifications. The actual lift thickness should depend on the compaction equipment used. If rolling equipment including sheepsfoot, smooth-wheel, segmented wheels, etc., the lift should be a maximum of 8 inches in thickness prior to compaction. For hand-directed mechanical equipment as vibratory plates or tamper, the maximum lift thickness should not exceed 4 inches.

3.2.5 Shrinkage and Subsidence

Change in volume of excavated and recompacted soil varies according to initial density, which is a function of soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Subsidence occurs as natural ground is moisture-conditioned and densified to receive fill. Field and laboratory data used in our calculations included laboratory-measured maximum dry densities for soil types encountered at this site relative to measured, in-place densities of soils sampled. We estimate that shrinkage due to recompaction of onsite soils will vary from one location to another and with depth. We suggest an estimated shrinkage ranging from 5 to 15 percent be considered for the upper 5 feet below ground surface.

3.3 **Bearing Capacity and Earth Pressures**

3.3.1 Bearing Capacity

A net allowable bearing capacity of 2,500 psf, or a modulus of subgrade reaction of 200 pci may be used for design of footings of appurtenant structures founded into a minimum of 12-inches of compacted fill. A minimum base width of 18 inches for continuous footings and a minimum bearing area of 3 square feet (1.75 ft by 1.75 ft) for pad foundations should be used. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind). No minimum embedment is required for shallow mat/slab foundations. A minimum of 12-inch embedment should be considered for all isolated shallow spread and continuous footings.

If applicable, lateral loads on thrust blocks and other appurtenant structures may be resisted by passive soil pressure and friction, in combination. An allowable passive pressure based on an equivalent fluid pressure of 350 pounds-per-cubic-foot (pcf), not to exceed 3,500 pounds per square foot (psf) can be used if the pipe is embedded in the alluvium or compacted fill (minimum 2 feet embedment). This equivalent fluid pressure may be doubled for isolated thrust blocks. We have not applied a factor-of-safety to these values. A soil-pipeline surface friction of 0.20 for PVC pipes. A maximum allowable frictional resistance of 0.40 may be used for estimating lateral loads caused by friction between the footings/concrete and the supporting subgrade. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind).

A modulus of soil reaction (E') of 1,200 psi can be used to estimate the stiffness of the soil bedding backfill at the sides and below buried flexible pipelines for the purpose of evaluating deflection caused by weight of the backfill over the pipe. This value assumes that the proposed pipelines are embedded at 5 feet below existing grades and a granular bedding material with an average relative compaction of 90 percent or more (per ASTM D1557) is placed.

3.3.2 Soils Parameters for Pipeline Design

Structural design of pipes requires proper evaluation of possible loads acting on the pipe, including dead and live or transient loads. Stresses and strains induced in a buried pipe depend on many factors, including the type of pipe, depth and width of trench, bedding and embedment conditions, soil density, angle of internal friction, coefficient of passive earth pressure, and coefficient of friction at the interface between the backfill and in-situ soils. We recommend the following soil parameters for the proposed pipe design:

Table 3. Soil Parameters for Pipe Design

Soil Parameters	Recommended Values
Average compacted fill moist unit weight, (pcf)	125
Angle of internal friction of soils (degrees)	34
Soil cohesion, c (psf)	0
Sliding friction between pipe and native soils	0.20
Coefficient of friction between backfill and native soils	0.45

3.3.3 External Loads on Pipe by Soil

Structural design of pipes requires proper evaluation of possible loads acting on the pipe, including dead and live or transient loads. Stresses and strains induced. The magnitude of the load supported depends on the amount of backfill, type of soil, and pipe stiffness. For flexible pipes, the approximate dead load per unit length can be calculated from the following formula:

$$W = C \gamma B D$$

Where,

- W External soil load on pipe: (pounds per foot of pipe)
- C Unit less load coefficient (C = 1.4 for 5 feet deep trench, and 1.8 for 10 feet deep trench, assuming a trench width of 3 feet just above the pipe)
- γ Total unit weight of soil above pipe (pounds-per-cubic-foot)
- B Width of the trench (width just above top of the pipe, in feet)
- D Pipe diameter (feet)

In addition to the load from backfill (above equation), loads due to embankments (if applicable) and other loads (live loads) should be considered.

3.4 Temporary Cut Slopes

The contractor is responsible for all temporary slopes and trenches excavated at the site and the design of any required temporary shoring. Shoring, bracing and benching should be performed by the contractor in accordance with the current edition of the *California Construction Safety Orders*, see:

<http://www.dir.ca.gov/title8/sb4a6.html>

During construction, exposed earth material conditions should be regularly evaluated to verify that conditions are as anticipated. The contractor is responsible for providing the "competent person" required by OSHA standards to evaluate soil conditions. Close coordination between the competent person and geotechnical consultant should be maintained to facilitate construction while providing safe excavations. Existing alluvial soils encountered are classified as OSHA soil Type C. Therefore, unshored temporary cut slopes should be no steeper than 1½:1 (horizontal:vertical), for a height no-greater-than (\leq) 20 feet (*California Construction Safety Orders*, Appendix B to Section 1541.1, Table B-1). These recommended temporary cut slopes assume a level ground surface for a distance equal to one-and-a-half (x1.5) the depth of excavation. For steeper temporary slopes, deeper excavations, and/or where slopes terrain exists within close proximity to excavation ($<1.5 \times \text{depth}$), appropriate shoring methods or flatter slopes may be required to protect the workers in the excavation and adjacent improvements. Such methods should be implemented by the contractor and approved by the consultant.

3.5 Retaining Walls

The pad for the new tank will require a cut into an existing slope along the east side that may require a retaining wall up to 15 feet in height. Retaining wall earth pressures are a function of the amount of wall yielding horizontally under load. If the wall can yield enough to mobilize full shear strength of backfill soils, then the wall can be designed for "active" pressure. If the wall cannot yield under the applied load, the shear strength of the soil cannot be mobilized and the earth pressure will be higher. Such walls should be designed for "at rest" conditions. If a structure moves toward the soils, the resulting resistance developed by the soil is the "passive" resistance. Retaining walls backfilled with non-expansive soils should be designed using the following equivalent fluid pressures:

Table 4. Retaining Wall Design Earth Pressures (Static, Drained)

Loading Conditions	Equivalent Fluid Density (pcf)	
	Level Backfill	2:1 Backfill
Active	36	50
At-Rest	55	85
Passive*	300	150 (2:1, sloping down)

* This assumes level condition in front of the wall will remain for the duration of the project, not to exceed 4,500 psf at depth.

Unrestrained (yielding) cantilever walls should be designed for the active equivalent-fluid weight value provided above for very low expansive soils that are free draining. In the design of walls restrained from movement at the top (non-yielding) such as basement or elevator pit/utility vaults, the at-rest equivalent fluid weight value should be used. Total depth of retained earth for design of cantilever walls should be measured as the vertical distance below the ground surface measured at the wall face for stem design, or measured at the heel of the footing for overturning and sliding calculations. Should a sloping backfill other than a 2:1 (horizontal:vertical) be constructed above the wall (or a backfill is loaded by an adjacent surcharge load), the equivalent fluid weight values provided above should be re-evaluated on an individual case basis by us. Non-standard wall designs should also be reviewed by us prior to construction to check that the proper soil parameters have been incorporated into the wall design.

The above equivalent fluid pressures do not include the effect of earthquake loading. Based on recent studies (Sitar, et. al., 2013), a uniform pressure distribution of 16H (psf) or incremental earth pressures of 26 pounds-per-cubic-foot (pcf) may be considered to estimate seismic lateral pressures acting against retaining walls for level backfill. An incremental earth pressures of 40 pounds-per-cubic-foot (pcf) should be considered to estimate seismic lateral pressures acting against retaining walls with 2:1 sloped backfill. These pressures need only to be applied to walls supporting more than 6 feet of level backfill per the 2019 California Building Code.

All retaining walls should be provided with appropriate drainage. The outlet pipe should be sloped to drain to a suitable outlet. Wall backfill should be non-expansive ($EI \leq 21$) sands compacted by mechanical methods to a minimum of 90 percent relative compaction (ASTM D 1557). Clayey site soils should not be used as wall backfill. Walls should not be backfilled until wall concrete attains the 28-day compressive strength and/or as determined by the Structural Engineer that the wall is structurally capable of supporting backfill. Lightweight compaction equipment should be used, unless otherwise approved by the Engineer.

3.6 Dewatering

Based on the results of our exploration, no groundwater was encountered within the borings performed. If encountered during excavations, groundwater control, such as dewatering, will be required to limit instability of the excavation bottom, side and face, and aid foundation construction and soil backfill. Groundwater due to perched saturated conditions can be dewatered utilizing sump-pumps. Dewatering or any other suitable method for stabilizing excavation bottom may be selected by the contractor based on actual groundwater conditions encountered and based on the contractor’s chosen means-and-methods of construction. The selected method by the contractor should be able to effectively mitigate for bottom heave or stabilize subgrade soils during construction/ backfilling.

3.7 Corrosivity Testing

Sulfate ions in the soil can lower soil resistivity and can be highly aggressive to portland cement concrete by combining chemically with certain constituents of the concrete, principally tricalcium aluminate. This reaction is accompanied by expansion and eventual disruption of the concrete matrix. Potentially high sulfate content could also cause corrosion of the reinforcing steel in concrete. Table below summarizes current standards for concrete exposed to sulfate-containing solutions.

Table 5. Sulfate Concentration and Sulfate Exposure

Sulfate In Water (parts-per-million)	Water-Soluble Sulfate (SO ₄) in soil (percentage by weight)	Sulfate Exposure
0-150	0.00 - 0.10	Negligible
150-1,500	0.10 - 0.20	Moderate (Seawater)
1,500-10,000	0.20 - 2.00	Severe
>10,000	Over 2.00	Very Severe

The sulfate content was determined in the laboratory for representative onsite soil sample. The results indicate that the water soluble sulfate range is less than 0.1 percent by weight for this site, which is considered negligible as per Table above. Based on the test results, Type II cement or equivalent may be used.

Many factors can affect corrosion potential of soil including soil moisture content, resistivity, permeability and pH, as well as chloride and sulfate concentration. In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor. Based on the findings of studies presented in ASTM STP 1013 titled “Effects of Soil Characteristics on Corrosion” (February, 1989), the approximate

relationship between soil resistivity and soil corrosiveness was developed as shown in Table below.

Table 6. Relationship between Soil Resistivity and Soil Corrosivity

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very Severely Corrosive
900 to 2,300	Severely Corrosive
2,300 to 5,000	Moderately Corrosive
5,000 to 10,000	Mildly Corrosive
10,000 to >100,000	Very Mildly Corrosive

Acidity is an important factor of soil corrosivity. The lower the pH (the more acidic the environment), the higher the soil corrosivity will be with respect to buried metallic structures and utilities. As soil pH increases above 7 (the neutral value), the soil is increasingly more alkaline and less corrosive to buried steel structures, due to protective surface films, which form on steel in high pH environments. The pH of representative soils sample from the site is 8.50 which is generally considered less corrosive. Chloride and sulfate ion concentrations, and pH appear to play secondary roles in affecting corrosion potential. High chloride levels tend to reduce soil resistivity and break down otherwise protective surface deposits, which can result in corrosion of buried steel or reinforced concrete structures.

Based on laboratory testing results of soil resistivity, the onsite soil is considered **Moderately Corrosive**. Ferrous pipe can be protected by polyethylene bags, tape or coatings, di-electric fittings, concrete encasement or other means to separate the pipe from wet onsite soils. Further testing of import and possibly site soil corrosivity could be performed and specific recommendations for corrosion protection may need to be provided by a qualified corrosion engineer.

Table 7. Corrosion Sample Results

Boring	Sample Depth (ft)	Sulfate Content (ppm)	Chloride Content (ppm)	pH	Minimum Resistivity (ohm-cm)
LB-1	0-5	160	80	8.50	3,600
LB-2	0-5	230	-	-	-

3.8 Preliminary Pavement Design

Our preliminary pavement design is based on an assumed R-value of 45 and the guidelines included in Caltrans Highway Design Manual. For planning and estimating purposes, the pavement sections are calculated based on Traffic Indexes (TI) as indicated in Table below:

Table 8. Asphalt Pavement Sections

General Traffic Condition	Design Traffic Index (TI)	Asphalt Concrete (inches)	Aggregate Base* (inches)
Automobile Parking Lanes	4.5	3.0	4.0
	5.0	3.0	4.0
Truck Access & Driveways	6.0	3.5	4.0
	6.5	4.0	5.0

Appropriate Traffic Index (TI) should be selected or verified by the project civil engineer and appropriate R-value of the subgrade soils will need to be verified after completion of site grading to finalize the pavement design. Pavement design and construction should also conform to applicable local, county and industry standards. The Caltrans pavement section design calculations were based on a pavement life of approximately 20 years with a normal amount of flexible pavement maintenance.

For preliminary planning purposes, fire lanes and truck loading areas may be constructed of Portland Cement Concrete (PCC) with a minimum thickness of 6.0 inches assuming light axle loads and an average daily truck traffic (ADTT) of less than 500. For medium/heavy axle loads and an ADT of 500 or more, a minimum PCC thickness of 8 inches should be used, such as for trash corrals and trash truck aprons, loading docks, etc. All PCC pavement should have a minimum 28-day concrete compressive strength of 3,250 psi and have appropriate joints and saw cuts in accordance with either Portland Cement Association (PCA) or American Concrete Institute (ACI) guidelines. PCC subgrade should be compacted to 95 percent relative compaction in the upper 6 inches. For truck lanes and ramps, a 4-inch (minimum) layer of Class 2 aggregate base at 95 percent relative compaction should be considered beneath the PCC paving. This 4-inch layer of Class 2 aggregate may be used beneath other areas of PCC pavement to improve performance. The upper 6 inches of the underlying subgrade soils should also be compacted to at least 95 percent relative compaction (ASTM D1557). Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density as determined by ASTM D1557. If applicable, aggregate base should

conform to the “Standard Specifications for Public Works Construction” (green book) current edition or Caltrans Class 2 aggregate base.

If pavement areas are adjacent to heavily watered landscape areas, some deterioration of the subgrade load bearing capacity may result. Moisture control measures such as deepened curbs or other moisture barrier materials may be used to prevent the subgrade soils from becoming saturated. The use of concrete cutoff or edge barriers should be considered when pavement is planned adjacent to either open (unfinished) or irrigated landscaped areas.

3.9 Additional Geotechnical Services

Recommendations are based on information available at the time our report was prepared and may change as plans are developed, or if supplemental subsurface exploration is authorized. Leighton Consulting, Inc. should review site, grading and foundation plans, when available, and comment further on geotechnical aspects of the project. Geotechnical observation and testing should be conducted during excavation and all phases of grading. Geotechnical conclusions and preliminary recommendations should be reviewed and verified by us (Leighton Consulting, Inc.) during construction, and revised accordingly if geotechnical conditions encountered vary from our findings and interpretations. Geotechnical observation and testing should be provided:

- Perform fault trenching to determine fault setback zone, if any,
- To observe trench excavation for indications of faulting,
- To approve subgrade soils prior to placing bedding materials,
- During compaction of trench backfill,
- After excavation of all footings and prior to placement of concrete,
- During pavement subgrade and base and/or sub-base preparation, and
- When any unusual conditions are encountered.

4.0 LIMITATIONS

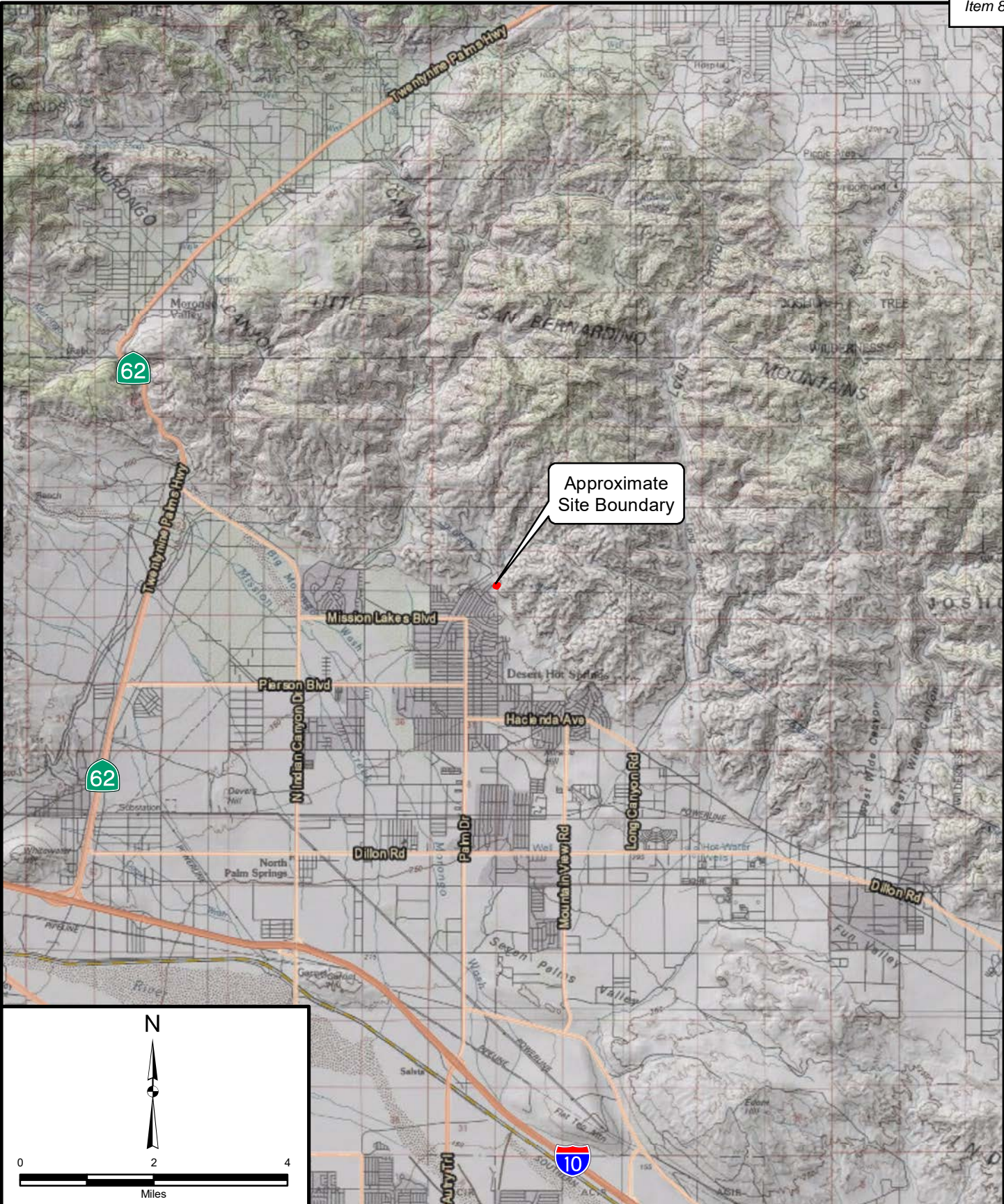
This report was necessarily based in part upon data obtained from a limited number of observances, site visits, soil samples, tests, analyses, histories of occurrences, spaced subsurface explorations and limited information on historical events and observations. Such information is necessarily incomplete. The nature of many sites is such that differing characteristics can be experienced within small distances and under various climatic conditions. Changes in subsurface conditions can and do occur over time. This exploration was performed with the understanding that the project as described in Section 1.2 of this report.

This report was prepared for TKE Engineering, Inc. based on TKE Engineering, Inc. needs, directions, and requirements at the time of our investigation. This report is not authorized for use by, and is not to be relied upon by any party except TKE Engineering, Inc., and its successors and assigns as owner of the property, with whom Leighton Consulting, Inc. has contracted for the work. Use of or reliance on this report by any other party is at that party's risk. Unauthorized use of or reliance on this report constitutes an agreement to defend and indemnify Leighton Consulting, Inc. from and against any liability which may arise as a result of such use or reliance, regardless of any fault, negligence, or strict liability of Leighton Consulting, Inc.

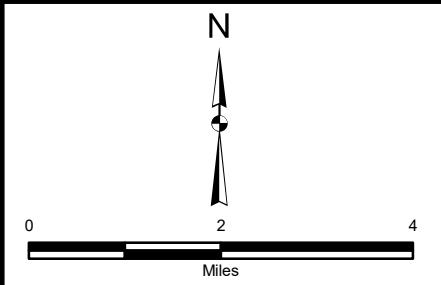
The client is referred to Appendix D regarding important information provided by the Geoprofessional Business Association (GBA) on geotechnical engineering studies and report and their applicability.

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Approximate
Site Boundary



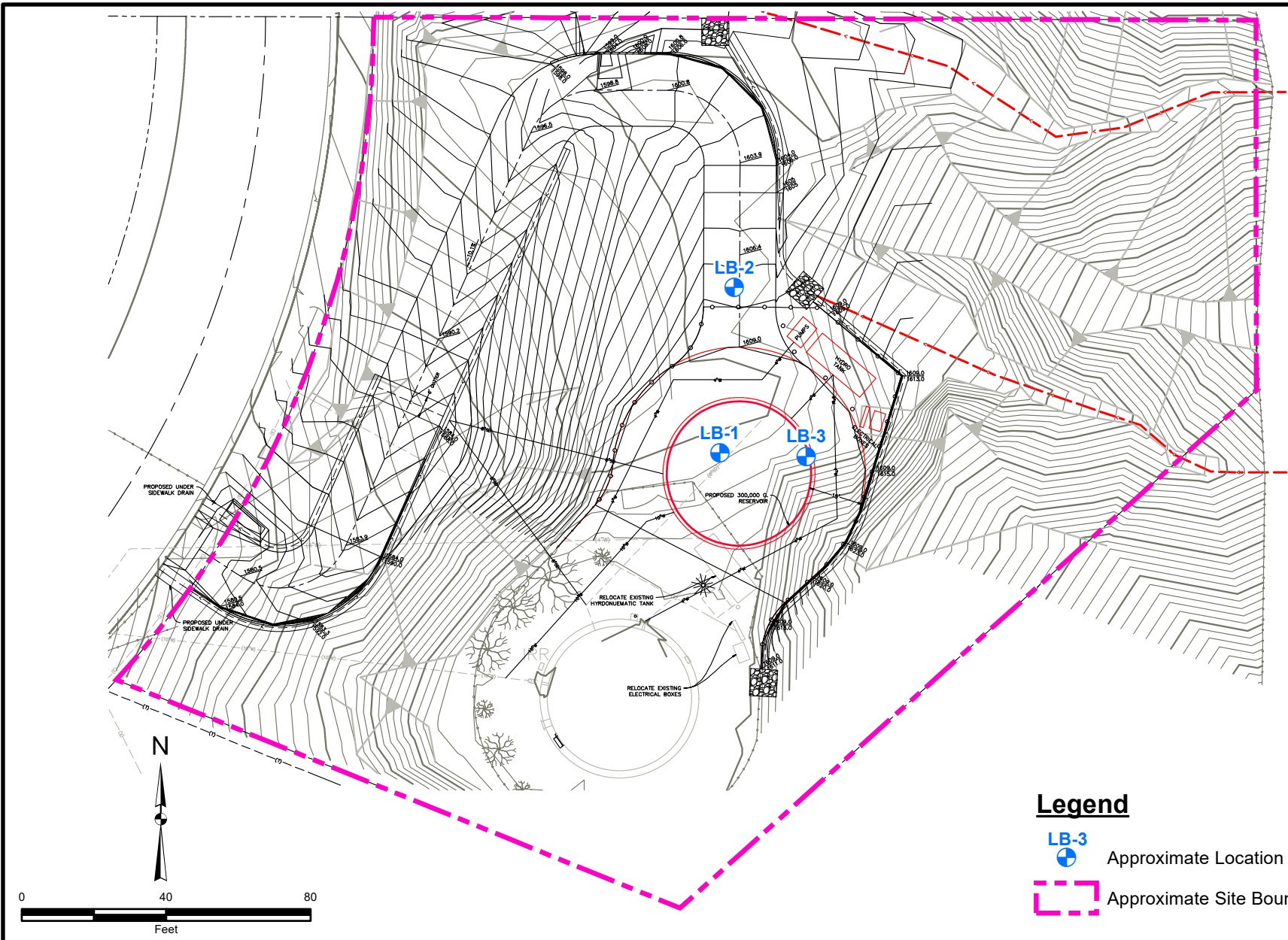
Project: 12761.001	Eng/Geol: SIS/RFR
Scale: 1" = 2 miles	Date: July 2020
Base Map: Bing Maps 2020 Thematic Information: Leighton Author: Leighton Geomatics (mmurphy)	

SITE LOCATION MAP



Vista Reservoir Proposed Tank
Mission Springs Water District
Desert Hot Springs, California

Figure 1

Leighton



Legend

-  LB-3 Approximate Location of Boring
-  Approximate Site Boundary

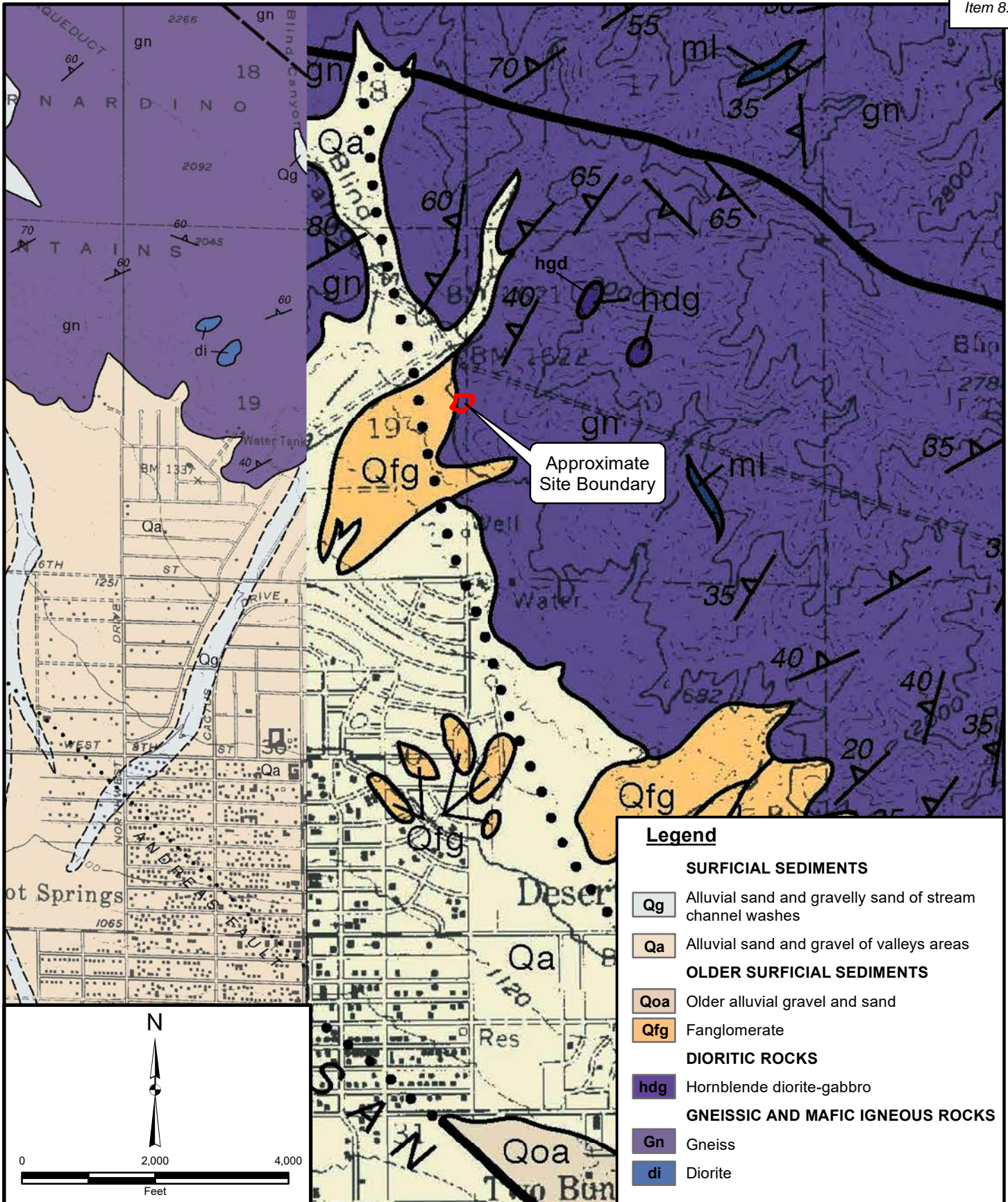
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Scale: 1" = 40'	Date: July 2020
Base Map: Vista Reservoirs Proposed Tank Alternative 1 by TKE Engineering.	
Author: Leighton Geomatics (mmurphy)	

BORING LOCATION MAP

Vista Reservoir Proposed Tank
Mission Springs Water District
Desert Hot Springs, California

Figure 2





Legend

SURFICIAL SEDIMENTS

Qg Alluvial sand and gravelly sand of stream channel washes

Qa Alluvial sand and gravel of valleys areas

OLDER SURFICIAL SEDIMENTS

Qoa Older alluvial gravel and sand

Qfg Fanglomerate

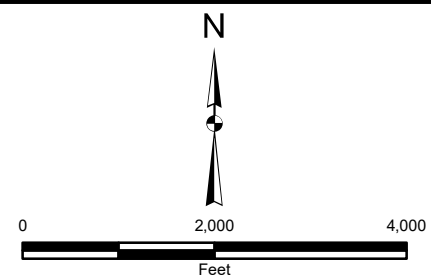
DIORITIC ROCKS

hgd Hornblende diorite-gabbro

GNEISSIC AND MAFIC IGNEOUS ROCKS

Gn Gneiss

di Diorite



Project: 12761.001	Eng/Geol: SIS/MSB
Scale: 1" = 2,000'	Date: July 2020

Base Maps Geologic Map of the Thousand Palms & Lost Horse Mountain and Desert Hot Springs Quadrangle, by Thomas W. Dibblee Jr., 2004.
 Author: Leighton Geomatics (mmurphy)

REGIONAL GEOLOGY MAP
 Vista Reservoir Proposed Tank
 Mission Springs Water District
 Desert Hot Springs, California

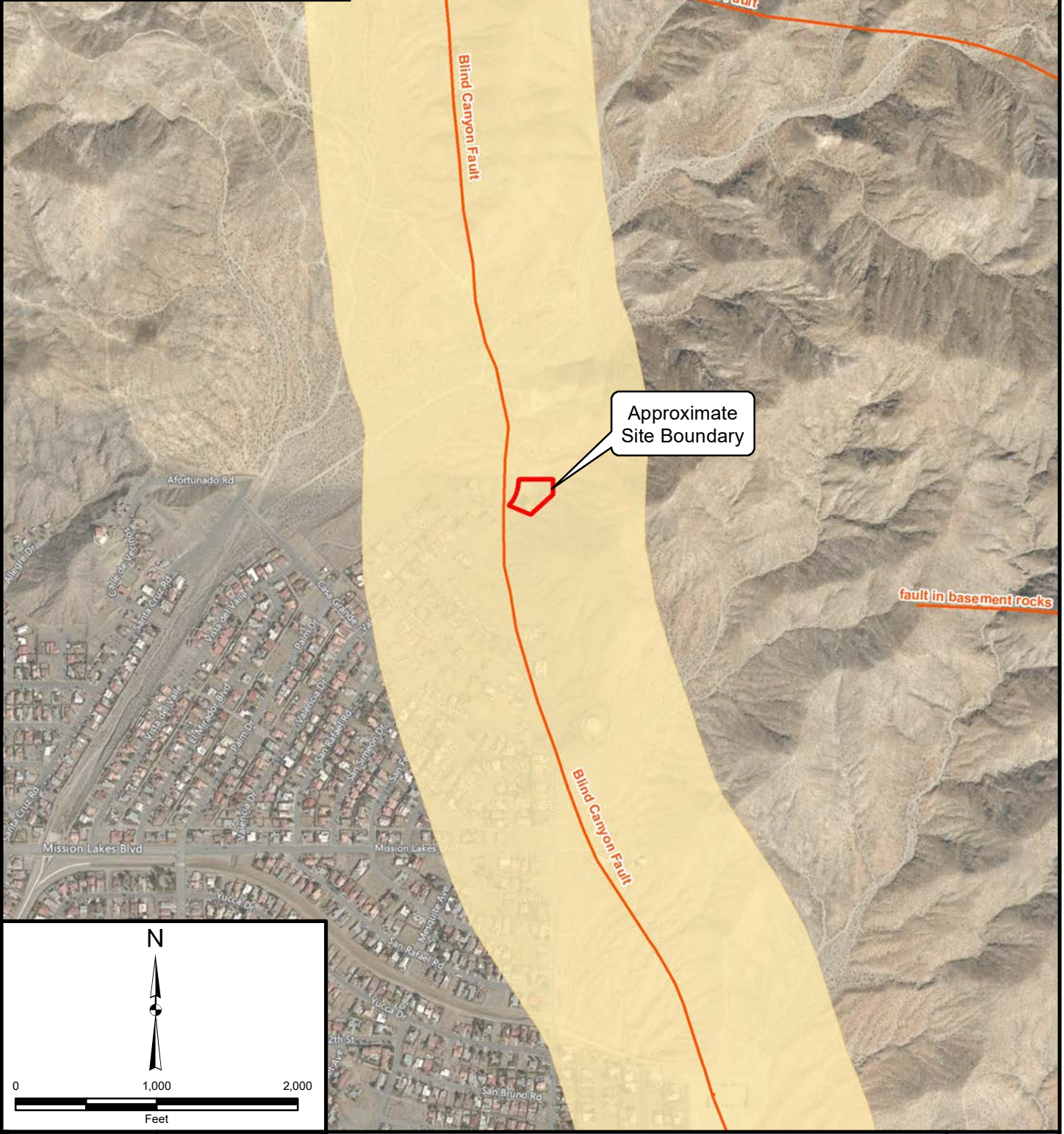
Figure 1



Leighton

Legend

- Riverside County Faults
- Riverside County Fault Zone



Project: 12761.001	Eng/Geol: SIS/RFR
Scale: 1" = 1,000'	Date: July 2020
Base Map: Bing Maps 2020	
Thematic Information: Leighton	
Author: Leighton Geomatics (mmurphy)	

REGIONAL FAULT MAP
 Vista Reservoir Proposed Tank
 Mission Springs Water District
 Desert Hot Springs, California

Figure 4

Leighton

APPENDIX A

Field Exploration / Logs of Exploratory Borings

Our field exploration consisted of a site reconnaissance and a subsurface exploration program consisting of hollow-stem auger soil borings. Approximate locations of the borings are depicted on the Boring Location Plan (*Figure 2*). Encountered soils were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D 2488). Logs of these subsurface explorations, as well as a key to the classification of the soil, are included as part of this appendix.

Relatively undisturbed soil samples were obtained at selected intervals within the borings using a California ring sampler, with 2.42-inch inside diameter brass rings, driven into the soil with a 140-pound hammer free falling 30-inches in general accordance with ASTM Test Method D3550. The numbers of blows required for each 6 inches of drive penetration were noted in the field and are recorded on the boring logs. Unless otherwise indicated, the blows per foot recorded on the boring logs represent the number of blows required to drive 18 inches in 6 inch increments. In addition, disturbed bag (or bulk) samples were also obtained from soil cuttings. Types of samples obtained from each location are shown on the boring logs at corresponding depths. Our borings were backfilled with soil cuttings obtained during the drilling, and with bentonite grout in some cases. Representative earth-material samples obtained from these subsurface explorations were transported to our Temecula geotechnical laboratory for evaluation and appropriate testing.

The attached subsurface exploration logs and related information depict subsurface conditions only at the locations indicated and at the particular date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these locations. The passage of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

GEOTECHNICAL BORING LOG LB-1

Item 8.

Project No. 12761.001
Project TKE MSWD Vista Reservoir
Drilling Co. 2R Drilling
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Boring Location Map

Date Drilled 5-19-20
Logged By BSS
Hole Diameter 8"
Ground Elevation NA'
Sampled By BSS

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0	N S							This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0			B-1				SM	Fanglomerate (Qfg): SILTY SAND with GRAVEL, medium dense, light brown, slightly moist, fine to medium sand, (SA: 11% fines, 37% gravel, MD: 134.0 @ 8.0%, SE = 42)	SA, MD, SE, CR
	5			R-1	5 5 5	110	7		loose, olive brown, moist, fine to coarse sand, more gravel	
	10			R-2	17 50-5"				very dense, dark brown, moist, fine to coarse sand, some gravel (sample disturbed)	
	15			R-3	50-2"			SP-SM	Poorly graded SAND with SILT and GRAVEL, very dense, dark olive brown, moist, fine to medium sand, few coarse sand	
	20			R-4	50-3"			GP-GM	Poorly graded GRAVEL with SILT and SAND, hard, grayish brown, slightly moist, fine to medium sand	
	25			R-5	50-3"				(no recovery)	
	30								Drilled to 25' Sampled to 20' Groundwater not encountered Backfilled with soil cuttings (5/19/20)	

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- 200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL

- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE

- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH



*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-2

Item 8.

Project No. 12761.001
Project TKE MSWD Vista Reservoir
Drilling Co. 2R Drilling
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Boring Location Map

Date Drilled 5-19-20
Logged By BSS
Hole Diameter 8"
Ground Elevation NA'
Sampled By BSS

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0	N S		B-1				SM	<i>This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.</i> Fanglomerate (Qfg): SILTY SAND with GRAVEL, dense, dark brown, moist, fine to coarse sand very dense, brown, moist, fine to coarse sand, subangular, some gravel (quartz)	
				R-1	15 50-5"	116	4			
	5			R-2	50-6"				Granitic/Gneiss Bedrock (gn): Highly weathered bedrock, recovered as: SILTY SAND with GRAVEL, very dense, light gray, slightly moist, very fine to coarse sand no recovery	
	10			R-3	40 50-2"					
	15			R-4	50-3"					
									Drilled to 15' Groundwater not encountered Backfilled with soil cuttings (5/19/20)	
	20									
	25									
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- 200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL

- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE

- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH



*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-3

Item 8.

Project No. 12761.001
Project TKE MSWD Vista Reservoir
Drilling Co. 2R Drilling
Drilling Method Hollow Stem Auger - 140lb - Autohammer - 30" Drop
Location See Boring Location Map

Date Drilled 5-19-20
Logged By BSS
Hole Diameter 8"
Ground Elevation NA'
Sampled By BSS

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0	N S							This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0			R-1	7 8 8	119	2	SM	Fanglomerate (Qfg): SILTY SAND, medium dense, light brown, slightly moist, fine to medium sand, few gravel medium dense, light brown, slightly moist, fine to coarse sand, some gravel	
	5			R-2	5 8 8	121	2		medium dense, light brown, slightly moist, fine to coarse sand with fine gravel	
	10			R-3	50-5"			SP-SM	Poorly graded SAND with SILT and GRAVEL, very dense, dark gray, dry, fine to medium sand	
	15			R-4	50-4"				very dense, light brownish gray, dry, fine to coarse sand, to Sandy GRAVEL	
	20			R-5	20-3"				no recovery	
	25								Drilled to 20' Sampled to 15' Groundwater not encountered Backfilled with soil cuttings (5/19/20)	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- 200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL

- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE

- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

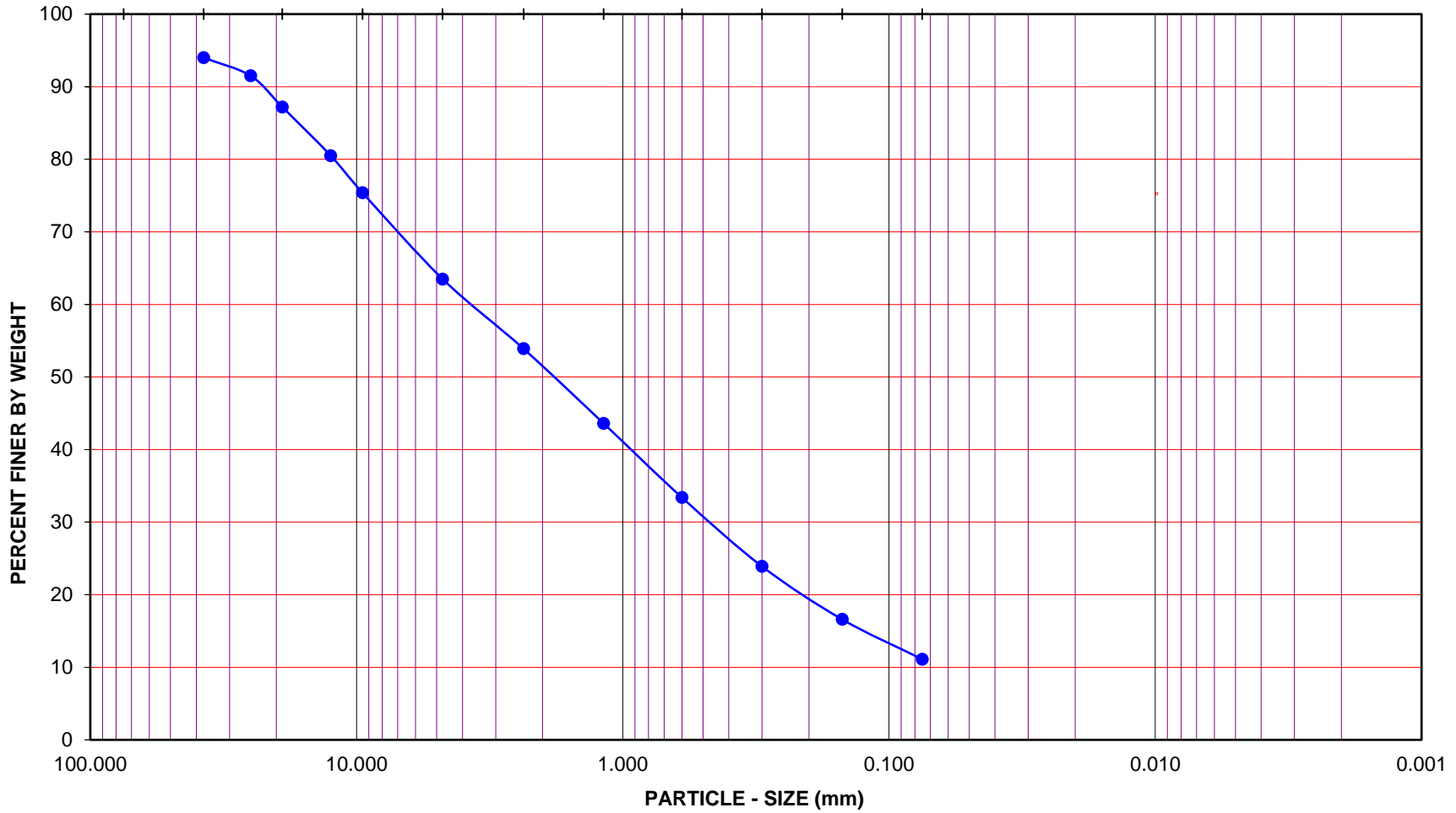


APPENDIX B

Results of Geotechnical Laboratory Testing



GRAVEL				SAND						FINES	
COARSE		FINE		COARSE	MEDIUM		FINE		SILT		CLAY
U.S. STANDARD SIEVE OPENING				U.S. STANDARD SIEVE NUMBER						HYDROMETER	
3.0"	1 1/2"	3/4"	3/8"	#4	#8	#16	#30	#50	#100	#200	



Project Name: TKE MSWD Vista Reservoir

Project No.: 12761.001

Boring No.: LB-1

Sample No.: B-1

Depth (feet): 0 - 5.0

Soil Type : (SW-SM)g

Soil Identification: Well-Graded Sand with Silt and Gravel (SW-SM)g, Dark Yellowish Brown.

GR:SA:FI : (%) 37 : 52 : 11



**PARTICLE - SIZE DISTRIBUTION
ASTM D 6913**

Jun-20



MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name: TKE MSWD Vista Reservoir Tested By: F. Mina Date: 06/05/20
 Project No.: 12761.001 Input By: M. Vinet Date: 06/17/20
 Boring No.: LB-1 Depth (ft.): 0 - 5.0
 Sample No.: B-1
 Soil Identification: Well-Graded Sand with Silt and Gravel (SW-SM)g, Dark Yellowish B

Note: Corrected dry density calculation assumes specific gravity of 2.70 and moisture content of 1.0% for oversize material

Preparation Method:	<input checked="" type="checkbox"/>	Moist				
		Dry		Scalp Fraction (%)		Rammer Weight (lb.) = 10.0
				#3/4	12.8	Height of Drop (in.) = 18.0
Compaction Method:	<input checked="" type="checkbox"/>	Mechanical Ram		#3/8		
		Manual Ram		#4		Mold Volume (ft ³) = 0.07500

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	10270	10397	10216			
Weight of Mold (g)	5559	5559	5559			
Net Weight of Soil (g)	4711	4838	4657			
Wet Weight of Soil + Cont. (g)	3383.1	3366.8	2978.6			
Dry Weight of Soil + Cont. (g)	3156.6	3083.6	2688.9			
Weight of Container (g)	280.8	279.1	278.3			
Moisture Content (%)	7.9	10.1	12.0			
Wet Density (pcf)	138.5	142.2	136.9			
Dry Density (pcf)	128.4	129.2	122.2			

Maximum Dry Density (pcf) **130.0**
 Corrected Dry Density (pcf) **134.0**

Optimum Moisture Content (%) **9.0**
 Corrected Optimum Moisture Content (%) **8.0**

Procedure A
 Soil Passing No. 4 (4.75 mm) Sieve
 Mold : 4 in. (101.6 mm) diameter
 Layers : 5 (Five)
 Blows per layer : 25 (twenty-five)
 May be used if + #4 is 20% or less

Procedure B
 Soil Passing 3/8 in. (9.5 mm) Sieve
 Mold : 4 in. (101.6 mm) diameter
 Layers : 5 (Five)
 Blows per layer : 25 (twenty-five)
 Use if + #4 is >20% and +3/8 in. is 20% or less

Procedure C
 Soil Passing 3/4 in. (19.0 mm) Sieve
 Mold : 6 in. (152.4 mm) diameter
 Layers : 5 (Five)
 Blows per layer : 56 (fifty-six)
 Use if +3/8 in. is >20% and +3/4 in. is <30%

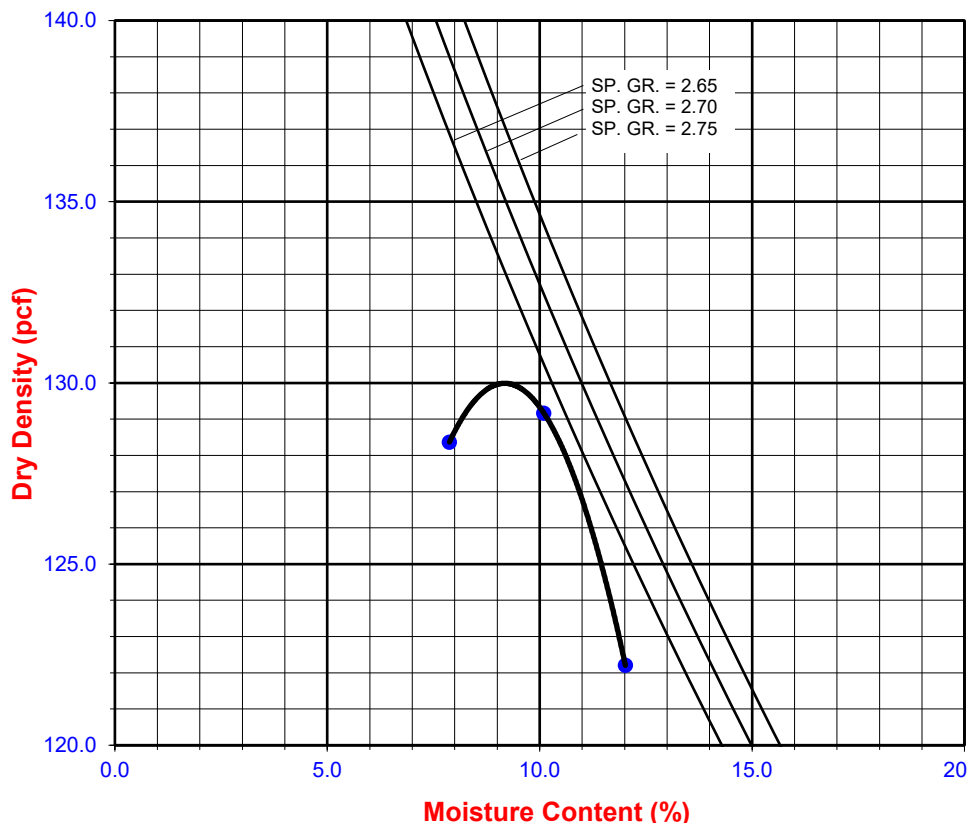
Particle-Size Distribution:

37:52:11

GR:SA:FI

Atterberg Limits:

LL, PL, PI





SAND EQUIVALENT TEST
ASTM D 2419 / DOT CA Test 217

Project Name: TKE MSWD Vista Reservoir
 Project No. : 12761.001
 Client: TKE Engineering, Inc

Tested By: F. Mina Date: 6/6/20
 Computed By: F. Mina Date: 6/6/20
 Checked By: M. Vinet Date: 6/17/20

Boring No.	Sample No.	Depth (ft.)	Soil Description	T1	T2	T3	T4	R1	R2	SE	Average SE
LB-1	B-1	0 - 5.0	(SW-SM)g	09:00	09:10	09:12	09:32	7.7	3.1	41	42
				09:02	09:12	09:14	09:34	8.0	3.4	43	

T1 = Starting Time

T3 = Settlement Starting Time

Sand Equivalent = $R2 / R1 * 100$

T2 = (T1 + 10 min) Begin Agitation

T4 = (T3 + 20 min) Take Clay Reading (R1)

Record SE as Next Higher Integer

**TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS**

Project Name: TKE MSWD Vista Reservoir
 Project No. : 12761.001

Tested By : F. Mina Date: 06/06/20
 Data Input By: M. Vinet Date: 06/17/20

Boring No.	LB-1	LB-2		
Sample No.	B-1	B-1		
Sample Depth (ft)	0 - 5.0	0 - 5.0		
Soil Identification:	(SW-SM)g	(SM)		
Wet Weight of Soil + Container (g)	100.00	100.00		
Dry Weight of Soil + Container (g)	100.00	100.00		
Weight of Container (g)	0.00	0.00		
Moisture Content (%)	0.00	0.00		
Weight of Soaked Soil (g)	100.00	100.00		

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	1	2		
Crucible No.	1	2		
Furnace Temperature (°C)	850	850		
Time In / Time Out	Timer	Timer		
Duration of Combustion (min)	45	45		
Wt. of Crucible + Residue (g)	25.0269	24.5236		
Wt. of Crucible (g)	25.0230	24.5180		
Wt. of Residue (g) (A)	0.0039	0.0056		
PPM of Sulfate (A) x 41150	160.49	230.44		
PPM of Sulfate, Dry Weight Basis	160	230		

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	30	--		
ml of AgNO3 Soln. Used in Titration (C)	1.0	--		
PPM of Chloride (C -0.2) * 100 * 30 / B	80	--		
PPM of Chloride, Dry Wt. Basis	80	--		

pH TEST, DOT California Test 643

pH Value	8.50	--		
Temperature °C	21.0	--		



SOIL RESISTIVITY TEST

Item 8.

DOT CA TEST 643

Project Name: TKE MSWD Vista Reservoir
 Project No. : 12761.001
 Boring No.: LB-1
 Sample No. : B-1

Tested By : F. Mina Date: 06/06/20
 Data Input By: M. Vinet Date: 06/17/20
 Depth (ft.) : 0 - 5.0

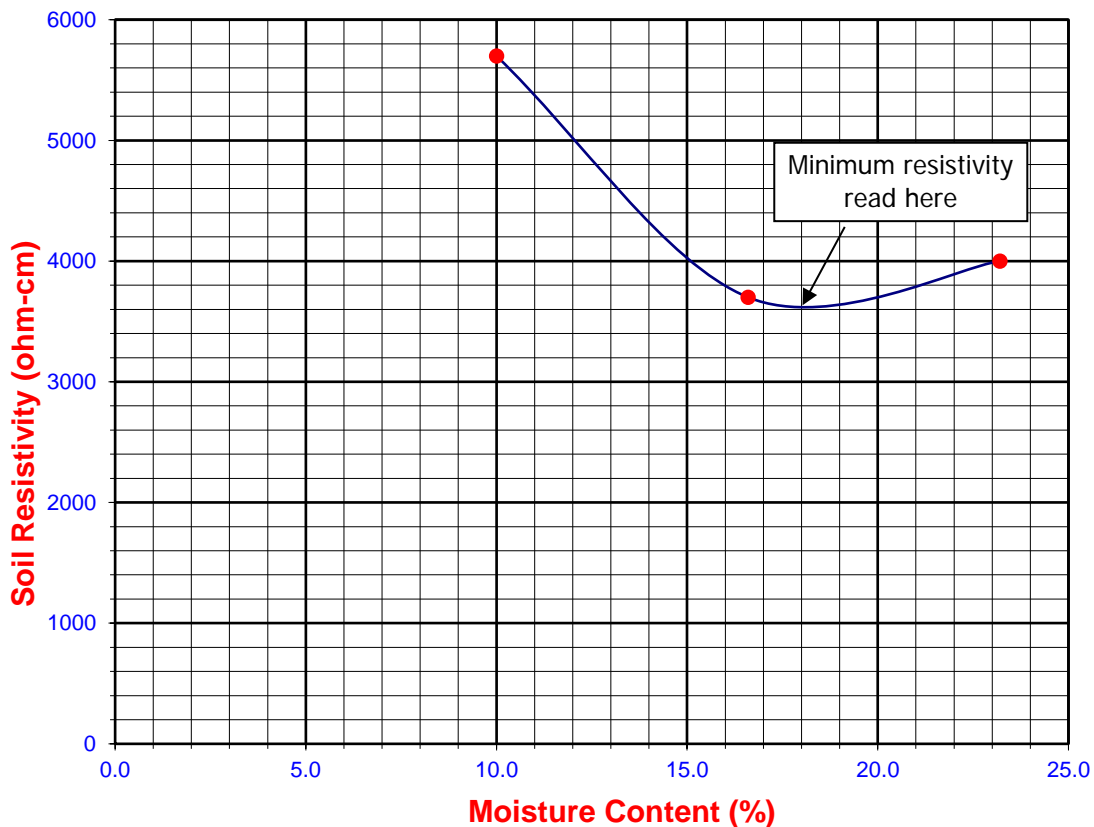
Soil Identification:* (SW-SM)g

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	50	10.00	5700	5700
2	83	16.60	3700	3700
3	116	23.20	4000	4000
4				
5				

Moisture Content (%) (Mci)	0.00
Wet Wt. of Soil + Cont. (g)	100.00
Dry Wt. of Soil + Cont. (g)	100.00
Wt. of Container (g)	0.00
Container No.	A
Initial Soil Wt. (g) (Wt)	500.00
Box Constant	1.000
$MC = (((1 + Mci/100) \times (Wa/Wt + 1)) - 1) \times 100$	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II		DOT CA Test 643	
3600	18.0	160	80	8.50	21.0



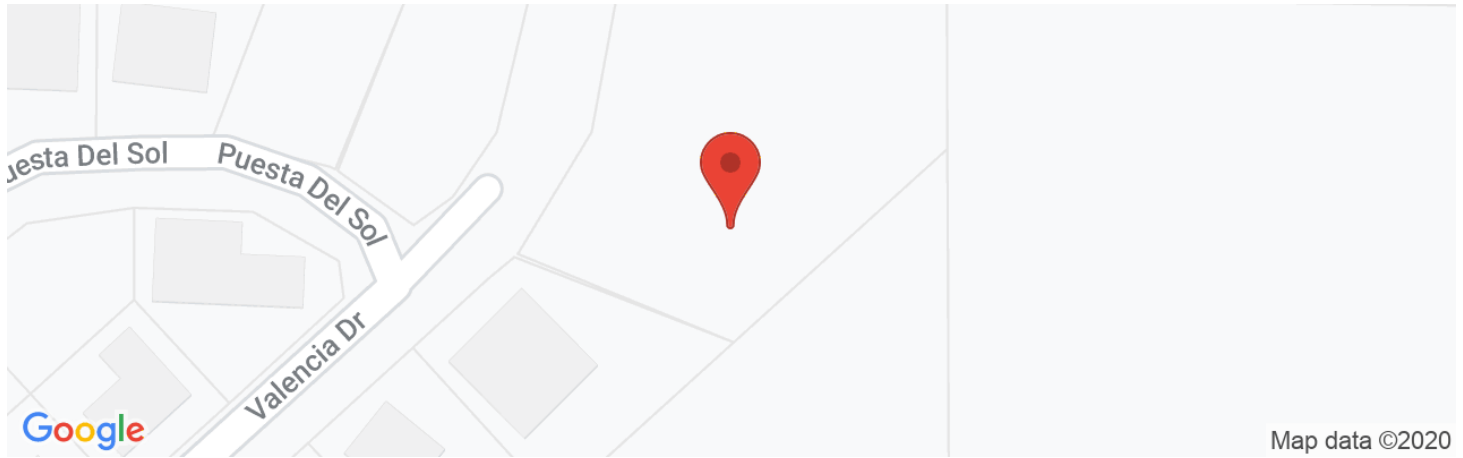
APPENDIX C

Seismic Parameters Output





Latitude, Longitude: 33.9828, -116.4932



Map data ©2020

Date	5/8/2020, 2:18:09 PM
Design Code Reference Document	ASCE7-16
Risk Category	IV
Site Class	C - Very Dense Soil and Soft Rock

Type	Value	Description
S_S	2.068	MCE_R ground motion. (for 0.2 second period)
S_1	0.776	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.481	Site-modified spectral acceleration value
S_{M1}	1.086	Site-modified spectral acceleration value
S_{DS}	1.654	Numeric seismic design value at 0.2 second SA
S_{D1}	0.724	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	F	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	1.4	Site amplification factor at 1.0 second
PGA	0.858	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	1.03	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
S_{sRT}	2.214	Probabilistic risk-targeted ground motion. (0.2 second)
S_{sUH}	2.441	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
S_{sD}	2.068	Factored deterministic acceleration value. (0.2 second)
S_{1RT}	0.856	Probabilistic risk-targeted ground motion. (1.0 second)
S_{1UH}	0.963	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S_{1D}	0.776	Factored deterministic acceleration value. (1.0 second)
$PGAd$	0.858	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.907	Mapped value of the risk coefficient at short periods
C_{R1}	0.889	Mapped value of the risk coefficient at a period of 1 s

Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the [U.S. Seismic Design Maps web tools](#) (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

^ Input

Edition

Dynamic: Conterminous U.S. 2014 (u... ▼

Spectral Period

Peak Ground Acceleration ▼

Latitude

Decimal degrees

33.9828

Time Horizon

Return period in years

475

Longitude

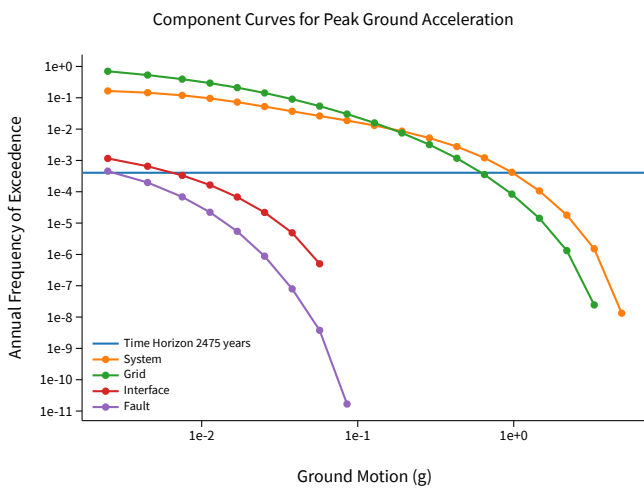
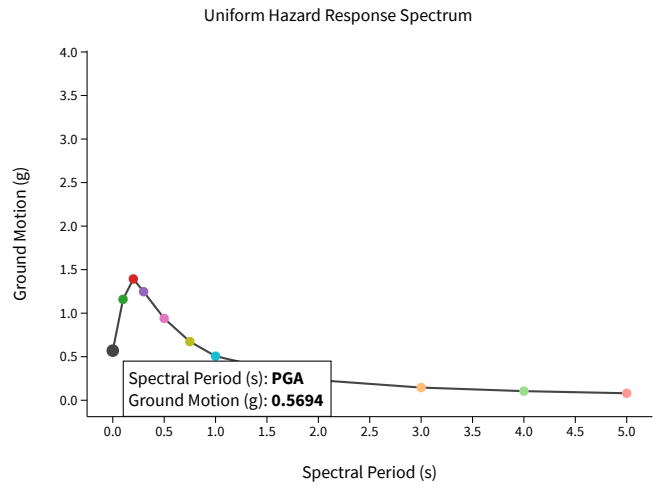
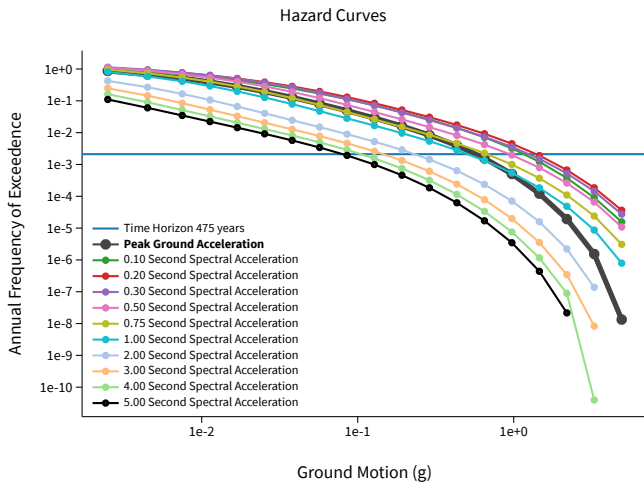
Decimal degrees, negative values for western longitudes

-116.4932

Site Class

537 m/s (Site class C) ▼

^ Hazard Curve



[View Raw Data](#)

Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the [U.S. Seismic Design Maps web tools](#) (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

^ Input

Edition

Spectral Period

Latitude

Decimal degrees

Time Horizon

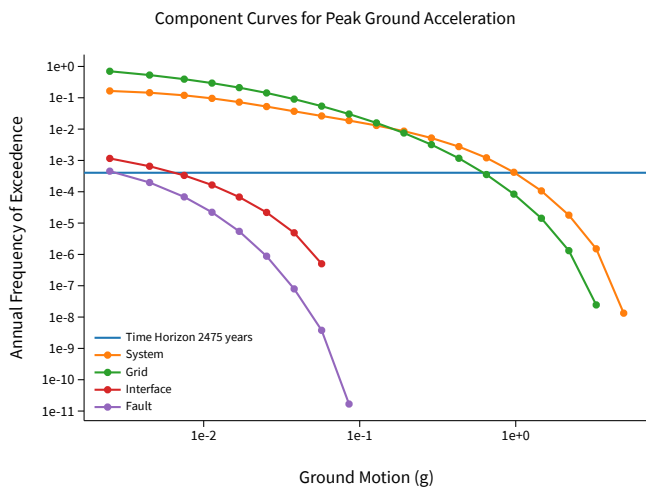
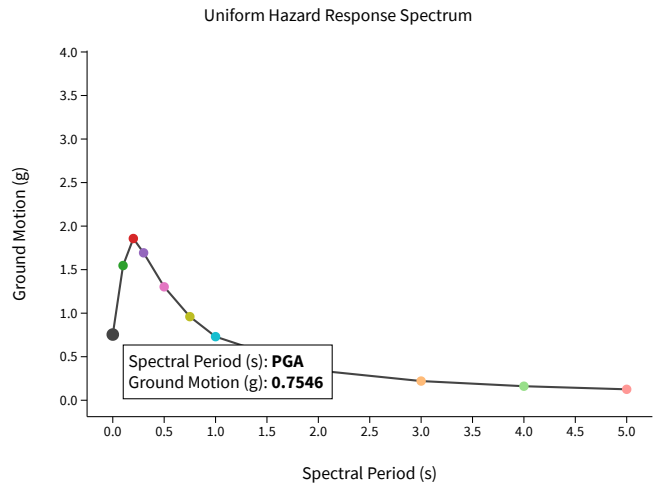
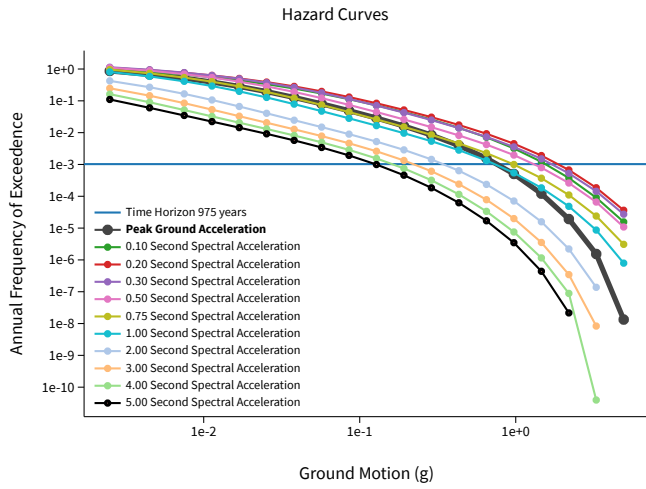
Return period in years

Longitude

Decimal degrees, negative values for western longitudes

Site Class

^ Hazard Curve



[View Raw Data](#)

Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the [U.S. Seismic Design Maps web tools](#) (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

^ Input

Edition

Spectral Period

Latitude

Decimal degrees

Time Horizon

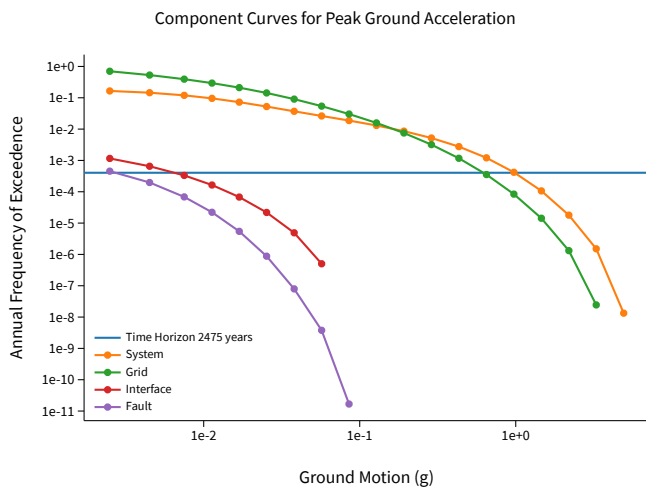
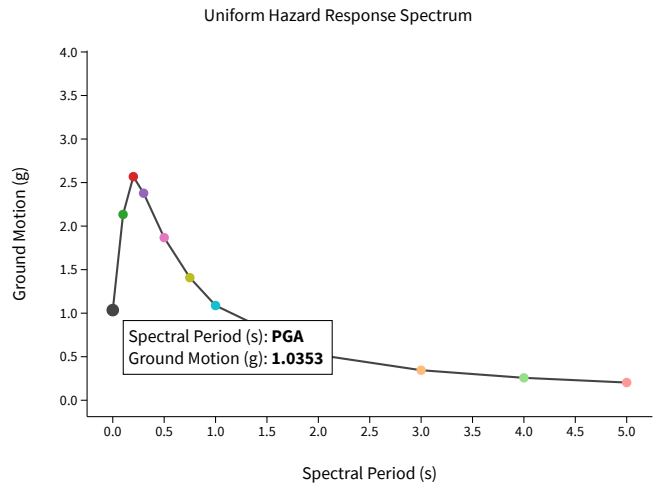
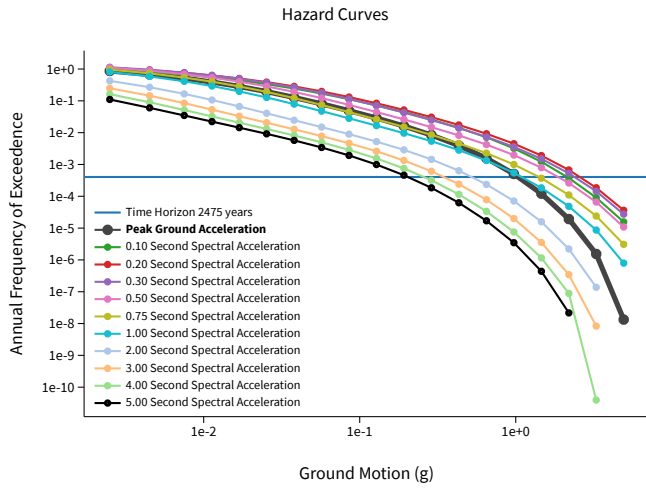
Return period in years

Longitude

Decimal degrees, negative values for western longitudes

Site Class

^ Hazard Curve



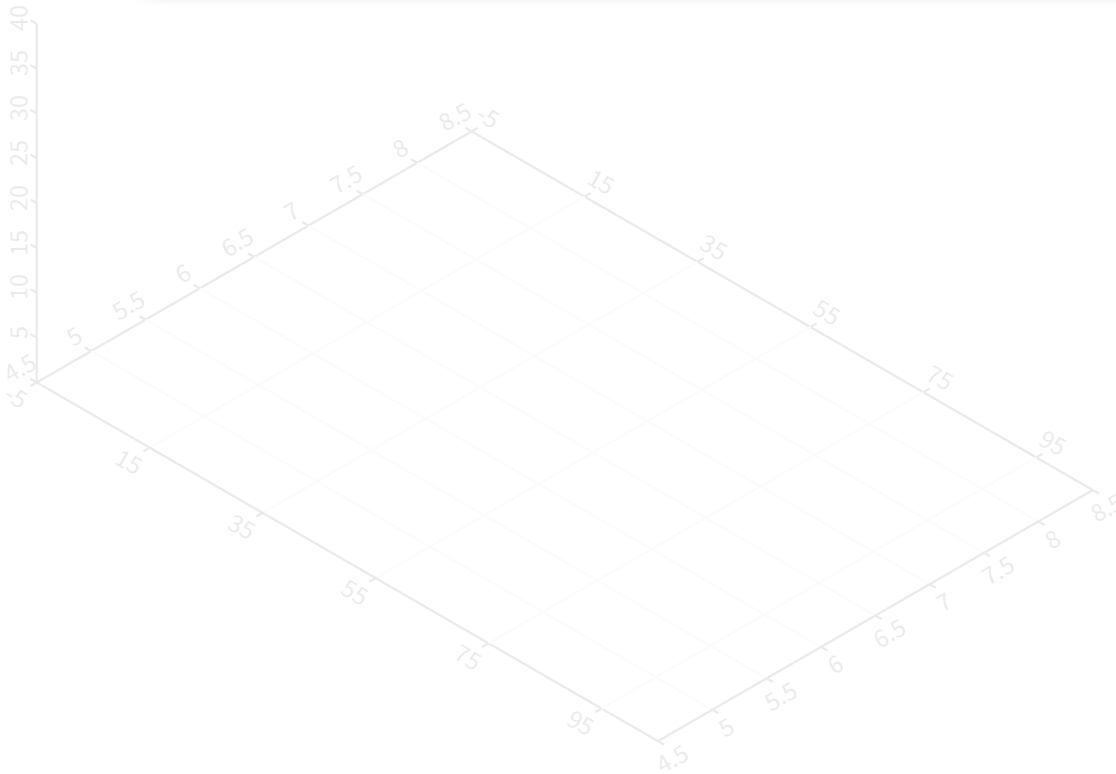
[View Raw Data](#)

^ Deaggregation

Component

i Please select "Edition", "Location", "Site Class", "Spectral Period" & "Time Horizon" above to compute a deaggregation.

Compute Deaggregation



APPENDIX D

GBA Important Information About This Geotechnical Report



Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation

everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed

and Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report’s Recommendations Are

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you’ve included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration.* **Confront the risk of moisture infiltration** by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*



Telephone: 301/565-2733
e-mail: info@geoprofessional.org www.geoprofessional.org

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MISSION SPRINGS WATER DISTRICT MITIGATED NEGATIVE DECLARATION

Lead Agency: Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

Contact: Danny Friend
Phone: (760) 329-6448
Email: dfriend@mswd.com

Project Title: Mission Springs Water District Vista Reservoir No. 2 Project

State Clearinghouse Number: #2021050019

Project Location: The project is located along Valencia Drive in the City of Desert Hot Springs. The project is located within the USGS Topo 7.5-minute map for Seven Palms Valley, CA, and is located in Section 19, Township 2 South and Range 5 East. The approximate GPS coordinates of the project site are 33.983003°, -116.493301°. Refer to Figures 1 and 2 for the regional and site location maps

Project Description: Mission Springs Water District (MSWD or District) is proposing to develop a second reservoir at the existing Vista Reservoir site. The existing Vista Reservoir site is approximately 1.23 acres and is surrounded by mountain terrain consisting of mild to steep slopes and an earthen driveway up to the existing 300,000-gallon reservoir pad at 1,609 feet in elevation. The existing reservoir is connected to two different pressure zones via a 10-inch waterline and a hydropneumatic station with a 4-inch waterline.

The proposed Vista Reservoir No. 2 Project includes a new 300,000-gallon reservoir approximately 30 feet northwest of the existing reservoir. Ultimately the installation of the new 300,000-gallon reservoir at the Vista Reservoir site will require installation of the following: retaining walls and hillside slope stabilization, stormwater management BMPs, installation of a new access road, relocation of the existing hydropneumatic station and the electrical cabinet, grading, wrought iron and chain link fence, and a new 300,000-gallon welded steel water storage reservoir and related piping. Design and construction of the Project is anticipated to be completed in approximately 6 months. Construction is anticipated to start in the third quarter of 2021.

Finding: The Mission Springs Water District's decision to implement this proposed project is a discretionary decision or "project" that requires evaluation under the California Environmental Quality Act (CEQA). Based on the information in the project Initial Study, the City has made a *preliminary* determination that a Mitigated Negative Declaration will be the appropriate environmental determination for this project to comply with CEQA.

Initial Study: Since the State had issued an Executive Order during the threat of COVID-19 and the MSWD Offices were closed to the public; a copy of the Initial Study was available at the MSWD Offices (66575 Second Street, Desert Hot Springs, CA 92240), electronically at their website at <https://www.mswd.org/projects.aspx>. The 30-day public review period for the Initial Study began May 5, 2021 and ended June 4, 2021. Comments were submitted by June 4, 2021 and sent to Danny Friend at the Mission Springs Water District's office at 66575 Second Street, Desert Hot Springs, CA 92240.

Mitigation Measures: All mitigation measures identified in the Initial Study are summarized on pages 70-74 and are proposed for adoption as conditions of the project. These measures will be implemented through a mitigation monitoring and reporting program if the Mitigated Negative Declaration is adopted.

Signature

Title

Date

MISSION SPRINGS WATER DISTRICT NOTICE OF DETERMINATION

To: Riverside County Clerk
2724 Gateway Drive
Riverside, CA 92507

From: Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

and
Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

Subject: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

Mission Springs Water District Vista Reservoir No. 2 Project
Project Title

<u>SCH#2021050019</u>	<u>Danny Friend</u>	<u>760) 329-6448</u>	<u>dfriend@mswd.org</u>
State Clearinghouse No.	Lead Agency Contact Person	Telephone Number	Email Address

Project Location

The project is located along Valencia Drive in the City of Desert Hot Springs. The project is located within the USGS Topo 7.5-minute map for Seven Palms Valley, CA, and is located in Section 19, Township 2 South and Range 5 East. The approximate GPS coordinates of the project site are 33.983003°, -116.493301°.

Project Description

Mission Springs Water District (MSWD or District) is proposing to develop a second reservoir at the exiting Vista Reservoir site. The existing Vista Reservoir site is approximately 1.23 acres and is surrounded by mountain terrain consisting of mild to steep slopes and an earthen driveway up to the existing 300,000-gallon reservoir pad at 1,609 feet in elevation. The existing reservoir is connected to two different pressure zones via a 10-inch waterline and a hydropneumatic station with a 4-inch waterline.

The proposed Vista Reservoir No. 2 Project includes a new 300,000-gallon reservoir approximately 30 feet northwest of the existing reservoir. Ultimately the installation of the new 300,000-gallon reservoir at the Vista Reservoir site will require installation of the following: retaining walls and hillside slope stabilization, stormwater management BMPs, installation of a new access road, relocation of the existing hydropneumatic station and the electrical cabinet, grading, wrought iron and chain link fence, and a new 300,000-gallon welded steel water storage reservoir and related piping. Design and construction of the Project is anticipated to be completed in approximately 6 months. Construction is anticipated to start in the third quarter of 2021.

This is to advise that the Mission Springs Water District has approved the above described project on

Lead Agency Responsible Agency

_____ and has made the following determination regarding the above described project:
(Date)

Notice of Determination, page 2 of 2

- 1. The project [will will not] have a significant effect on the environment.
- 2. An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
 A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
- 3. Mitigation measures [were were not] made a condition of the approval of the project and a Mitigation Monitoring and Reporting Plan was adopted.
- 4. A Statement of Overriding Considerations [was was not] adopted for this project.
- 5. Findings [were were not] made pursuant to the provisions of CEQA.

This is to certify that the Mitigated Negative Declaration/Initial Study and record of project approval is available to the general public at:

66575 Second Street, Desert Hot Springs, CA 92240

Signature *Title* *Date*

AGENDA STAFF REPORT

MEETING NAME: REGULAR BOARD MEETING
MEETING
DATE(S): SEPTEMBER 16 & 20, 2021
FROM: Brian Macy – Assistant General Manager



FOR: ACTION X DIRECTION INFORMATION

RESOLUTION 2021-15

CERTIFICATION AND ADOPTION OF THE FINAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR THE GROUNDWATER QUALITY PROTECTION PROGRAM (GQPP) AREAS H AND I SEWER IMPROVEMENTS PROJECT

STAFF RECOMMENDATION

Board adoption of Resolution 2021-15, certifying and adopting the Final Initial Study and Mitigated Negative Declaration for the Areas H and I Sewer Improvement Project, adopt the Mitigation Monitoring and Reporting Program (MMRP), and authorize the General Manager to sign and file a Notice of Determination (NOD) with the County of Riverside within five days of the Board meeting.

SUMMARY

Mission Springs Water District (MSWD), as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to construct 30,000 lineal feet of new sewer pipeline. This project pertains to Sub Areas H and I and would install the pipeline required to connect 678 parcels to the MSWD sewer system and abate over 468 on-site septic systems. MSWD's decision to implement the project is a discretionary decision which qualifies as a "project" under CEQA. Based on the information in the project IS, MSWD determined that a MND was the appropriate environmental determination for this project to comply with CEQA.

ANALYSIS

The MND is a negative declaration that incorporates mitigation measures into the proposed project that will avoid or mitigate impacts to a point of no significant impact on the environment would occur. The IS evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agricultural and Forestry Resources, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, Recreation, and Wildfire. Regarding Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Tribal Cultural Resources, and Utilities and Service Systems, the IS determined the implementation of mitigation measures (MMRP) would reduce project impacts to a less than significant level. MSWD received one written comment letter, from CAL FIRE/Riverside County Fire Department. Responses to comments have been provided to the agency and is made a part of the Final IS/MND documentation.

FISCAL IMPACT AND STRATEGIC PLAN IMPLEMENTATION

The certification and adoption of the Final IS / MND, MMRP, and NOD has no direct fiscal impact. However, implementation of the MMRP during construction may have fiscal impacts, which are considered a part of the approved project budget.

ATTACHMENTS

Resolution 2021-15
 Final Initial Study (including MMRP and Response to Comments)
 Mitigated Negative Declaration
 Notice of Determination

RESOLUTION NO. 2021-15

**BOARD OF DIRECTORS OF THE MISSION SPRINGS WATER DISTRICT
APPROVING THE INITIAL STUDY AND ADOPTING A MITIGATED NEGATIVE
DECLARATION FOR THE GQPP AREAS H & I SEWER IMPROVEMENTS PROJECT
(SCH#2021050331)**

WHEREAS, the California Environmental Quality Act (CEQA) of 1972, as amended, requires that prior to approval of any project, the Lead Agency shall consider the potential impacts and effects of said project, consider alternatives to the project, and identify mitigation measures necessary to reduce or eliminate potential significant impacts of the project on the environment; and

WHEREAS, the Mission Springs Water District is the Lead Agency for the Mitigated Negative Declaration (MND) and has prepared an Initial Study (IS) for the GQPP Areas H & I Sewer Improvements Project in accordance with CEQA and its implementing guidelines; and

WHEREAS, the District issued a Notice of Availability of a MND which assessed the project's potential environmental impact(s). Said notice was distributed to the State Clearing House and nine other local agencies. The notice stated that the MND would be available for public review and comment from May 19, 2021 through June 17, 2021; and

WHEREAS, the MND determined that the potential adverse environmental impacts are either non-significant without mitigation or can be reduced to a level of insignificance with mitigation, including the following: air quality construction impacts, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise during construction, transportation, utility and service systems; and

WHEREAS, the District Board of Directors, has received and has reviewed the MND, consisting of the Initial Study, all Responses to Comments, the Mitigation Monitoring and Reporting Program, and all other material in the administrative record; and

WHEREAS, pursuant to duly given public notice, the Mission Springs Water District Board of Directors has held a full and fair public hearing on September 20, 2021, concerning the GQPP Areas H & I Sewer Improvements Project and the MND and has considered all written and oral comments and testimony relating thereto and is fully advised thereon.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED by the Mission Springs Water District Board of Directors as follows:

Section 1. A full and fair public meeting having been held on the MND prepared in connection with the GQPP Areas H & I Sewer Improvements Project, as stated in the recitals herein, the Mission Springs Water District Board of Directors hereby approves and adopts the MND and the Mitigation Monitoring and Reporting Program.

The District further finds that all changes or alterations that have been required in connection with the above Project have and/or will be incorporated which will avoid or

substantially lessen the potential significant environmental effects identified in the final MND. The District further finds that the revised mitigation measures included in the final MND are more effective in mitigating potential significant effects and that these revised measures will not cause any potentially significant effects on the environment.

Section 2. The Mission Springs Water District hereby authorizes and directs the: (1) filing and posting of a Notice of Determination (NOD) as required by Section 21152 of the Public Resources Code, and that filing required pursuant to Section 21089 (b) of the Public Resources Code by the General Manager with the Riverside County Clerk and the State Clearinghouse, Governor’s Office of Planning and Research; and (2) Payment of the NOD and California Department of Fish and Wildlife filing fees.

Section 3. The Mission Springs Water District hereby adopts the mitigation measures recommended as conditions of project approval as presented in the Mitigation Monitoring and Reporting Program, and the Mitigation Monitoring and Reporting Program prepared for the purpose of monitoring the mitigation measures which have been adopted or made a condition of project approval as described in Section 1 of this Resolution and all as more fully described in the Mitigation Monitoring and Reporting Program.

Section 4. This Resolution shall take effect upon adoption by the Mission Springs Water District Board of Directors.

ADOPTED this ____ day of September 2021, by the following vote:

- Ayes:
- Noes:
- Abstain:
- Absent:

ATTEST:

Nancy Wright
President of Mission Springs Water District
and its Board of Directors

Arden Wallum
Secretary of Mission Springs Water District
and its Board of Directors

**FINAL INITIAL STUDY / MITIGATED NEGATIVE
DECLARATION**

FOR THE

**MISSION SPRINGS WATER DISTRICT
AREAS H AND I SEWER IMPROVEMENTS PROJECT**

Prepared for:

Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

Prepared by:

Tom Dodson & Associates
P.O. Box 2307
San Bernardino, California 92406
(909) 882-3612

July 2021

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Conformed Copy of Notice of Determination

Comment Letters and Responses to Comments

Mitigation Monitoring and Reporting Program

Draft Initial Study (w/ Appendices)

**CONFORMED COPY OF
NOTICE OF DETERMINATION**

COMMENT LETTERS AND RESPONSES TO COMMENTS

TOM DODSON & ASSOCIATES

PHYSICAL ADDRESS: 2150 N. ARROWHEAD AVENUE SAN BERNARDINO, CA 92405

MAILING ADDRESS: PO BOX 2307, SAN BERNARDINO, CA 92406

TEL (909) 882-3612 • FAX (909) 882-7015

E-MAIL TDA@TDAENV.COM

**MEMORANDUM**

July 19, 2021

From: Kaitlyn Dodson-Hamilton

To: Mr. Danny Friend, Director of Engineering and Operations

Subject: Completion of the Mitigated Negative Declaration for the Areas H and I Sewer Improvements Project (SCH No. 2021050331)

Mission Springs Water District (MSWD or District) received 1 written comment letter on the proposed Mitigated Negative Declaration for the Areas H and I Sewer Improvements Project. CEQA requires a Negative Declaration to consist of the Initial Study; copies of the comments; any responses to comments as compiled on the following pages; and any other Project-related material prepared to address issues evaluated in the Initial Study.

For this Project, the original Initial Study (IS) will be utilized as one component of the Final Mitigated Negative Declaration (MND) package. The attached responses to comments, combined with the Initial Study and the Mitigation Monitoring and Reporting Program, constitute the Final MND package that will be used by the District to consider the environmental effects of implementing the proposed Project.

The following party submitted a comment. The comment in this letter are addressed in the attached Responses to Comments:

1. CAL FIRE/Riverside County Fire Department

Because mitigation measures are required for this Project to reduce potentially significant impacts to a less than significant level, the Mitigation Monitoring and Reporting Program (MMRP) attached to this package is required to be adopted as part of this Final MND package. The MMRP has been incorporated by reference to this package for approval and implementation. The District consideration of the proposed Project and adoption of the Mitigated Negative Declaration will occur at a hearing, the date for which has not yet been scheduled.

Do not hesitate to give me a call if you have any questions regarding the contents of this package.



Kaitlyn Dodson-Hamilton
Attachments



Steve Ledbetter

May 27, 2021

Item 9.

RE: Mission Springs Water District's Report on Mitigated Negative Declaration to Evaluate Sewer Improve...

To: Chris.Cox@fire.ca.gov, Cc: Danny Friend, engineering, Tom Dodson, Kaitlyn Dodson-Hamilton

Details

Hi Chris,

On behalf of MSWD, confirming we have received your request below. The project is currently in the planning and design stage. Once the project is bid and awarded, the contractor will be required to notify all local agencies when any each specific is going to be impacted. At that time, we'd appreciate coordination on dissemination of information, as required. We'll record your notification request as part of the CEQA comments received to make sure it's included as part of the project records.

Please let me know if you have any additional questions or comments.

Thank you,



Steven Ledbetter, P.E.

Vice President

TKE ENGINEERING, INC.

Direct: (909) 725-8549

Office: (951) 680-0440

www.tkeengineering.com



From: Danny Friend <DFriend@mswd.org>

Sent: Thursday, May 27, 2021 2:10 PM

To: engineering <engineering@mswd.org>; Steve Ledbetter <sledbetter@tkeengineering.com>

Subject: FW: Mission Springs Water District's Report on Mitigated Negative Declaration to Evaluate Sewer Improvements Project

Team: Please review the email received below. Please have this addressed and respond on my behalf. Let me know what questions you have.

Danny Friend
Director of Engineering and Operations
Mission Springs Water District

From: Cox, Chris@CALFIRE <Chris.Cox@fire.ca.gov>

Sent: Thursday, May 27, 2021 2:07 PM

To: Danny Friend <DFriend@mswd.org>

Subject: Mission Springs Water District's Report on Mitigated Negative Declaration to Evaluate Sewer Improvements Project

We received the notice in the mail and reviewed the project.

We are requesting to be notified, specifically the local fire station, with the specific date when the project will commence.

When the specific date is determined, then please let our office know and we may assist with the dissemination of information.



Chris Cox

Assistant Fire Marshal/Office of the Fire Marshal

CAL FIRE/Riverside County Fire Department

Direct: 760-393-3386 | Main: 760-863-8886

77933 Las Montañas Road, Ste 201, Palm Desert, CA 92211

chris.cox@fire.ca.gov | www.rvcfire.org

■ Leadership ■ Competence ■ Integrity ■ Safety ■ Customer Service ■

The Office of the County Fire Marshal is committed to facilitating fire and life safety solutions by empowering its employees to serve our community through innovation and partnership.

**RESPONSE TO COMMENT
LETTER #1
CALFIRE/RIVERSIDE COUNTY FIRE DEPARTMENT**

- 1-1 Your comment is noted and will be made available to the District decision-makers for consideration prior to a decision on the proposed Project. The District has indicated via email, as provided in the referenced comment letter, indication that the contractor will be required to notify CALFIRE/Riverside County Fire Department when construction commences. The District will enforce this as a requirement of the construction contractor and the District will look forward to CALFIRE/Riverside County Fire Department's dissemination of information. The contact information provided in this comment shall be retained in the Project file.

MITIGATION MONITORING AND REPORTING PROGRAM

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Air Quality AIR-1 <u>Fugitive Dust Control</u>. The following measures shall be incorporated into project plans and specifications for implementation during construction:</p> <ul style="list-style-type: none"> • Apply soil stabilizers to inactive areas. • Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph. • Stabilize previously disturbed areas if subsequent construction is delayed. • Apply water to disturbed surfaces and haul roads 3 times/day. • Replace ground cover in disturbed areas quickly. • Reduce speeds on unpaved roads to less than 15 mph. • Trenches shall be left exposed for as short a time as possible. • Identify proper compaction for backfilled soils in construction specifications. <p>This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.</p>	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.</p>	<p>A copy of the construction contract including this air mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the air quality measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Air Quality AIR-2 <u>Exhaust Emissions Control</u>. The following measures shall be incorporated into Project plans and specifications for implementation:</p> <ul style="list-style-type: none"> • Utilize well-tuned off-road construction equipment. • Establish a preference for contractors using Tier 3 or better heavy equipment. • Enforce 5-minute idling limits for both on-road trucks and off-road equipment. 	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.</p>	<p>A copy of the construction contract including this air mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the air quality measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Biological Resources</p> <p>BIO-1 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).</p>	<p>Construction shall occur outside of the nesting season or a copy of the field survey documenting no nesting birds shall be completed prior to initiating construction within the nesting season.</p>	<p>District personnel shall document the dates of construction. If construction is proposed to occur within the nesting season, a copy of the field survey documenting the absence of nesting birds shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Cultural Resources</p> <p>CUL-1 In order to identify such archaeological deposits within the potentially sensitive areas of the APE—along Miracle Hill Road and the portion delineated by Hidalgo Street, Loma Vista Road, and Hermano Way—in a timely manner and, if necessary, to protect such resources from adverse effect from the undertaking, any ground disturbance that will occur in the archaeologically sensitive area and reach beyond the roadbed fill—generally speaking the uppermost five feet of surface and near-surface soils—shall be conducted under the direction and close observation of a qualified archaeologist. If any potentially significant cultural remains are encountered, the mechanical excavations shall be halted or diverted while an archaeological team recovers the materials through procedures consistent to a standard archaeological testing program.</p>	<p>This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction. The archaeological observation shall occur during construction.</p>	<p>A copy of the documentation of findings and any field notes and documentation made by the archaeologist shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the archaeological monitoring program is being implemented by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Cultural Resources CUL-2 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.</p>	Any response to exposed resources shall occur during construction. Any reports documenting management and findings for accidentally exposed resources shall be completed within one year of the discovery.	A copy of the documentation of findings where applicable shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel. Field notes documenting verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Cultural Resources CUL-2 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.</p>	This measure shall be implemented during construction if human remains are exposed during construction	The District shall retain all records of the discovery and management actions taken in regard to human remains in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Geology and Soils GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the Project site for future cleanup such that erosion does not occur.</p>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.	A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification
<p>Geology and Soils GEO-2 Excavated areas shall be backfilled and compacted such that erosion does not occur. Paved areas disturbed by this project shall be repaved in such a manner that roadways and other disturbed areas are returned to the pre-project conditions or better.</p>	<p>The design measures shall be incorporated into final site and building design and implement during construction.</p>	<p>The final designs shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geotechnical design measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	MSWD
		Status / Date / Initials

Mitigation Measure	Implementation Schedule	Verification
<p>Geology and Soils GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the pipelines are being installed.</p>	<p>The design measures shall be incorporated into final site and building design and implement during construction.</p>	<p>The final designs shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geotechnical design measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	MSWD
		Status / Date / Initials

Mitigation Measure	Implementation Schedule	Verification
<p>Geology and Soils GEO-4 The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time</p>	<p>The design measures shall be incorporated into final site and building design and implement during construction.</p>	<p>The final designs shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geotechnical design measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	MSWD
		Status / Date / Initials

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification	
<p>Geology and Soils GEO-5 Based upon the Subsurface Soils Investigation (Appendix 4a of this document), all of the recommendations identified in Appendix 4a (listed on pages 3-8) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site.</p>	The design measures shall be incorporated into final site and building design and implement during construction.	The final designs shall be retained in the project file. Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify the geotechnical design measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
<p>Geology and Soils GEO-6 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the MSWD's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.</p>	Any response to exposed resources shall occur during construction. Any reports documenting management and findings for accidentally exposed resources shall be completed within one year of the discovery.	MSWD shall be notified within 24-hours of accidental exposure of any paleontological resources. A copy of initial findings shall be provided to the MSWD and retained in the project file. A copy of the final report shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule		Verification
<p>Hazards and Hazardous Materials</p> <p>HAZ-1 All accidental spills or discharge of hazardous material during construction activities shall be reported to the Certified Unified Program Agency and shall be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately a licensed disposal or treatment facility. This measure shall be incorporated into the SWPPP prepared for the proposed project. Prior to accepting the site as remediated, the area contaminated shall be tested to verify that any residual concentrations meet the standard for future residential or public use of the site.</p>	<p>These measures shall be identified in the project construction contract as part of the and implemented during construction.</p>		<p>A copy of the construction contract including this hazards and hazardous materials measure shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the BMPs have been implemented as required in this measure. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification
<p>Hydrology and Water Quality</p> <p>HYD-1 MSWD shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:</p> <ul style="list-style-type: none"> • The use of silt fences; • The use of temporary stormwater desilting or retention basins; • The use of water bars to reduce the velocity of stormwater runoff; • The use of wheel washers on construction equipment leaving the site; • The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads; • The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and • Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles. 	<p>These measures shall be identified in the project SWPPP and implemented during future operations.</p>	<p>A copy of the SWPPP and construction contract shall be retained in the project file. Verification of implementation shall be based on field inspections by District inspection personnel that verify the SWPPP BMPs have been implemented as required in this measure. Field notes documenting verification shall be retained in the project file.</p>

Source	Responsible Party	Status / Date / Initials
Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification
<p>Noise</p> <p>NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.</p>	<p>This measure shall be implemented during construction and included in the contract with the construction contractor.</p>	<p>District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.</p>

Source	Responsible Party	Status / Date / Initials
Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Item 9.

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-3 No construction activities shall occur during the hours of 5 PM through 7 AM, Monday through Saturday; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-4 Equipment not in use for five minutes shall be shut off.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification	
Noise NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule	Verification		
Noise NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.		
				Source
		Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification		
Noise NOI-7 MSWD will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by MSWD.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.		
				Source
		Initial Study	MSWD	

Mitigation Measure	Implementation Schedule	Verification		
Noise NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, as determined by MSWD.	This measure shall be implemented during construction and included in the contract with the construction contractor.	District personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.		
				Source
		Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure		Implementation Schedule		Verification		
<p>Noise NOI-9</p> <p>MSWD shall require the construction contractor(s) to implement the following measures:</p> <ul style="list-style-type: none"> • Ensure that the operation of construction equipment that generates high levels of vibration including, but not limited to, large bulldozers, loaded trucks, pile-drivers, vibratory compactors, and drilling rigs, is minimized to below 72 vibration decibels (VdB), within 45 feet of existing residential structures and 35 feet of institutional structures (e.g., schools) during construction. Use of small rubber-tired bulldozers shall be enforced within these areas during grading operations to reduce vibration effects. • The construction contractor shall provide signs along the roadway identifying a phone number for adjacent property owners to contact with any complaint. During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests shall be conducted at the property line near the nearest occupied residences., If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold. These measures may include, but are not limited to the following: use different construction methods, slow down construction activity, or other mitigating measures to reduce vibration at the property from where the complaint was received. 	<p>The Construction Traffic Management Plan (CTMP) shall be compiled and approved prior to the initiation of construction. The CTMP shall be implemented during construction and shall be included as a measure in the construction contract.</p>		<p>A copy of the Plan shall be retained in the project file. Verification of implementation shall be based on field inspections by County inspection personnel that verify the construction traffic management plan is being implemented by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>			
				Source	Responsible Party	Status / Date / Initials
				Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure		Implementation Schedule	Verification	
<p>Transportation</p> <p>TRAN-1 MSWD shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:</p> <ul style="list-style-type: none"> • Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. • To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours. • Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones. • For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls. • Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities. 		<p>The Construction Traffic Management Plan (CTMP) shall be compiled and approved prior to the initiation of construction. The provisions of the Construction Traffic Management Plan shall be implemented during construction.</p>	<p>Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify adequate traffic management resources are being used by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>	
		Source	Responsible Party	Status / Date / Initials
		Initial Study	MSWD	

Mitigation Measure		Implementation Schedule	Verification	
<p>Transportation</p> <p>TRAN-2 MSWD shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of Riverside or City of Desert Hot Springs standard design requirements.</p>		<p>This measure shall be implemented during construction.</p>	<p>Verification of implementation shall be based on field inspections by MSWD inspection personnel that verify adequate traffic management resources are being used by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>	
		Source	Responsible Party	Status / Date / Initials
		Initial Study	MSWD	

**MISSION SPRINGS WATER DISTRICT AREAS H AND I SEWER IMPROVEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementation Schedule		Verification
<p>Utilities and Service Systems</p> <p>UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to MSWD for review and approval prior to the start of demolition/construction activities to accomplish this objective.</p>	<p>This measure shall be included in the construction contract and implemented during construction.</p>		<p>Verification of implementation shall be based on field inspections by District inspection personnel that verify the recycling plan is being complied with by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party	Status / Date / Initials
	Initial Study	MSWD	

**DRAFT INITIAL STUDY
(w/ APPENDICES)**

INITIAL STUDY

FOR THE

MISSION SPRINGS WATER DISTRICT

AREAS H AND I SEWER IMPROVEMENTS PROJECT

Prepared for:

Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

Prepared by:

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May 2021

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LIST OF ABBREVIATIONS AND ACROYNMS

AB	Assembly Bill
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
BRA	Biological Resources Assessment
BUOW	Burrowing Owl
C&D	Construction and Demolition
CAAA	Clean Air Act Amendment
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCAR	California Climate Action Registry (now called Climate Action Reserve)
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVPA	Coachella Valley Planning Area
CWA	Clean Water Act
dBA	A-weighted decibel
DTS	Department of Toxic Substances
DWR	Department of Water Resources
EI	Expansion Index
EO	Executive Orders
ESA	Endangered Species Act
FGC	Fish & Game Code
FTA	Federal Transit Association
GHG	Greenhouse Gas
HAS	Hydrologic Sub-Area
LST	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MSWD	Mission Springs Water District
NAAQS	National Ambient Air Quality Standards
NPDES	National Pollutant Discharge Elimination System
OS	Open Space
RCFD	Riverside County Fire Department
RCP	Reinforced Concrete Pipe
R-L	Residential Low
R-RD	Residential Rural Desert
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SRA	State Responsibility Area
SSAB	Salton Sea Air Basin
SWPPP	Storm Water Pollution Prevention Plan
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration-velocity decibel
WoUS	Waters of the United States
WQMP	Water Quality Management Plan

ENVIRONMENTAL CHECKLIST

INTRODUCTION

1. Project Title: Areas H and I Sewer Improvements Project
2. Lead Agency Name: Mission Springs Water District
Address: 66575 Second Street, Desert Hot Springs, CA 92240
3. Contact Person: Danny Friend, Director of Engineering and Operations
Phone Number: (760) 329-6448
Email: dfriend@mswd.org
4. Project Location: The MSWD service area is located in southern California within the northwestern portion of the Coachella Valley. The project will occur within various roadways generally located south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road. The southern boundary of the project site is about a half mile south of Hacienda Avenue. The roadways within which the proposed sewer improvements will be located include:

- Agua Cayendo Road
- Cuando Way
- Oro Lomo Street
- Suerte Way
- Tunitas Road
- Eliseo Road
- Miracle Hill Road
- Cerrita Way
- Pequena Drive
- Cielo Azul Way
- Loma Vista Road
- Hidalgo Street
- Hermano Way
- Inaja Street
- Quinta Way
- Monterico Road
- Alameda Drive
- Arena Blanca Road
- Oris Drive
- Key Way
- Monterey Road

The project is located within the USGS Topo 7.5-minute map for Seven Palms Valley, CA, and is located in Section 33, Township 2 South and Range 5 East. The approximate GPS coordinates of the project area are 33.95020°, -116.48380°. Refer to Figures 1 and 2 for the regional and site location maps.

5. Project Sponsor Name and Address: Mission Springs Water District
66575 Second Street, Desert Hot Springs, CA 92240
6. General Plan Designation: R-L: Residential Low (Up to 6.0 DU/AC) and V-S: Visitor-Serving
7. Zoning: R-L: Residential Low, VS-C: Visitor-Serving Commercial, and VS-M: Visitor-Serving Mixed

8. Project Description:

Introduction

Mission Springs Water District (MSWD or District) provides water and sewer services to the communities of Desert Hot Springs, West Garnet, North Palm Springs, and various portions of unincorporated Riverside County. MSWD, as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to install approximately 30,000 linear feet (LF) of 8-inch sewer pipeline within Areas H and I (refer to Figures 3 and 4) to eliminate septic tanks that threaten contamination of groundwater supplies by expanding MSWD’s wastewater collection system. This would also protect hot mineral water, which is the economic basis of the community’s spa industry.

In February of 1999, MSWD adopted the MSWD Sewer Improvement Project, which was intended to convert approximately 5,000 existing septic disposal treatment systems to a sewer conveyance and treatment system. The project was approved to develop about 62.8 miles of sewer line and a one million gallon per day (MGD) expansion of the District’s Horton Wastewater Treatment Plant. In March of 2011, MSWD adopted an Addendum to the MSWD Sewer Improvement Project titled “Addendum No. 1 for AD-12 Sewer Improvement Project,” which would enable the District to install about 57 miles of sewer pipelines and wastewater collection within the District’s service area. The proposed Areas H and I Sewer Improvements Project is an extension of the original project from 1999, but because over 20 years have passed since the original project was adopted, a follow-on Initial Study is being prepared to address the potential impacts from installation of the proposed 30,000 LF of sewer pipeline.

The District developed a Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater. The overall GQPP is designed to protect groundwater quality from degradation by discharges from septic tank leach-fields. The GQPP would ultimately remove more than 7,800 septic tanks for connection to MSWD’s sewer system. The proposed Areas H and I Sewer Improvements Project focuses on Sub Areas H and I and its construction to connect 678 parcels to the MSWD sewer system and abate over 468 on-site septic systems. Additionally, the proposed project would increase wastewater effluent available for treatment to tertiary levels and for reuse as recycled water in the future.

Project Description

MSWD proposes to construct 30,000 LF of new sewer pipeline that would be 8-inch in size within GQPP Sub Areas H and I of the District’s service area, within an area of approximately 220 acres. Figures 3 and 4 depict Sub Areas H and I and the proposed pipeline alignments. As stated above, the installation of this new sewer pipeline would convert areas within MSWD’s service area from septic system to a sewer system. This project pertains to Sub Areas H and I and would install the pipeline required to connect 678 parcels to the MSWD sewer system and abate over 468 on-site septic systems.

As stated under Project Location, above, the proposed project would install pipeline within a number of existing roadways as they align with Sub Areas H and I (Figures 3 and 4). The proposed project involves installation of pipeline at one location that is not within a roadway to connect sewer pipeline from Hidalgo Street to Quinta Way. This pipeline will skirt the boundaries of the homes within Sub Area I.

Construction Scenario

Construction is anticipated to begin in 2022 and is anticipated to require 9 months to complete.

It is assumed that an underground utility installation team can install approximately 200 to 400 lineal feet of sewer, force mains, or recycled water line per day. A team consists of the following:

- 1 Excavator
- 1 Backhoe
- 1 Paver
- 1 Roller
- 1 Water truck
- Traffic Control Signage and Devices
- 10 Dump/delivery trucks (80 miles round trip distance)
- Employees (12 members per team)

It is assumed that installation of 30,000 lineal feet of sewer line will occur over 160 days of construction over a period of about 8 months. The final activity associated with the sewer installation is repaving of roads disturbed by the construction. This is anticipated to occur over a 30 day period.

The project will utilize open cut trenching and jack and bore techniques. The depth to the invert of the pipe will be approximately 8 feet deep in the open cut trench areas and approximately 12 to 15 feet deep under the existing drainage channel between Hidalgo Street and Quinta Way.

9. Surrounding land uses and setting: (Briefly describe the project's surroundings)

The proposed project encompasses about 220 acres within the City of Desert Hot Springs. The project is therefore surrounded by a variety of uses:

- The uses to the north of the project area includes undeveloped land. The land use to the north is designated: V-S Visitor-Serving
- The uses to the east of the project area include a residential neighborhood and a few Hotel, Resorts, and Spas. The land uses to the east are: V-S Visitor-Serving, R-L: Residential Low (up to 6.0 dwelling units per acre [DU/AC]), and R-M: Residential Medium (up to 20 DU/AC)
- The uses to the south of the project area include vacant land and residential neighborhoods. The land uses to the south are: V-S Visitor-Serving and R-L: Residential Low (up to 6.0 DU/AC)
- The uses to the west of the project area include commercial businesses, the Two Bunch Palms Resort, and residential neighborhoods. The land uses to the west are: V-S Visitor-Serving and Two Bunch Palms Specific Plan

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

If listed species are involved, the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife (CDFW) may have to issue incidental take permits or permits may be obtained under the Multi-Species Habitat Conservation Plan (MSHCP). Local jurisdictions issue plant removal permits, for Joshua trees and native cactus. The Corps of Engineers, CDFW and

Colorado River Basin Regional Water Quality Control Board (RWQCB) may need to participate in review of any discharge of fill into or alteration of a streambed. The whole of the project exceeds the threshold for a General Construction National Pollutant Discharge Elimination System (NPDES) permit. This requires notification to the State Water Board and preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The proposed project may require encroachment permits from City of Desert Hot Springs to construct the pipeline within existing road rights-of-way.

11. Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Only one tribe has requested consultation with the District under AB 52, the Agua Caliente Band of Cahuilla Indians. Consultation letters were sent to the Agua Caliente Band of Cahuilla Indians on October 19, 2020. No response was received within the 30-day consultation period, as such no further action is required. Consultation is deemed complete as of November 17, 2020.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

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.

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

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	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.

 Tom Dodson & Associates
 Prepared by

 May 2019
 Date



 Lead Agency (signature)

 May 11, 2021
 Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "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 Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

a. *No Impact* – MSWD proposes to install 30,000 LF of new sewer pipeline that would be 8-inch in diameter within Sub Areas H and I of the District’s service area, within an area of approximately 220 acres. The proposed project will install the new sewer pipeline and laterals belowground within existing roadways, and within one section of land at one location that is not within a roadway to connect sewer pipeline from Hidalgo Street to Quinta Way. The dominant landscape feature of the project footprint are the Little San Bernardino Mountains that are located to the north and east. Additionally, middle- and background views within the City of Desert Hot Springs include the San Bernardino Mountains to the west, and the San Jacinto and Santa Rosa Mountains to the southwest and south, which also provide dramatic and valuable viewsheds. The proposed project site is located just south of the Little San Bernardino Mountains.

The presence of construction equipment and related construction materials would be visible from public vantage points such as sidewalks and streets within the Areas H and I footprint but it would not adversely affect any scenic views or vistas. Construction of the conveyance pipelines and ancillary facilities would not permanently affect views or scenic vistas. Thus, construction impacts would be less than significant. The entirety of the proposed project will be constructed belowground within existing roadways or disturbed right-of-way (ROW). Once constructed, the roadways and ROW will be returned to their original condition, and roadways repaved. Given that the project would not degrade views to nearby scenic vistas and that the visual effects of pipeline installation and repaved sections of roadway would not substantially alter the views in the project footprint in the long-term, implementation of the proposed Sewer Improvement Project is not expected to cause any substantial adverse effects on any important scenic vistas. No impacts are anticipated and no mitigation is required.

b. *No Impact* – The proposed project will install the new sewer pipeline and laterals belowground within existing roadways, and within one section of land at a location that is not within a roadway to connect sewer pipeline from Hidalgo Street to Quinta Way. None of the roadways within which the proposed project will be installed are designated as a scenic highway by the State of California. The nearest officially designated State scenic highway is State Highway 62 located approximately five miles west of the project site. Highway 62 is the main corridor gateway to Joshua Tree National Park and the main arterial roadway for the communities of Yucca Valley, Joshua Tree and Twenty-Nine Palms.

The project site would not be visible from Highway 62 and no impacts to the State Scenic Highway are anticipated. No rock outcroppings or historic buildings exist within the project footprint and as the proposed project would be constructed mostly within existing rights of way, no trees will be impacted by installation of the proposed sewer pipeline and laterals. Based on the lack of any intrinsic onsite scenic resources, the proposed project will not cause substantial project-specific damage to any such resources. No impacts are anticipated to occur under this issue and no mitigation is required.

- c. *No Impact* – The project site is located in an urbanized area within City of Desert Hot Springs. The project would connect customers within Areas H and I to MSWD’s sewer service through the installation of 30,000 LF of sewer pipeline and laterals. The proposed sewer pipelines would be placed underground and would not be visible once construction is complete. As the proposed pipelines will all be located belowground, and the roadways in which the pipelines are installed will be repaved as each segment of pipeline installation is completed, construction and operation of the proposed pipelines will have no potential to conflict with applicable zoning or other regulations governing scenic quality. No impacts are anticipated to occur under this issue and no mitigation is required.
- d. *No Impact* – There will be no new lighting associated with the proposed project. The pipelines will be constructed underground, mostly within existing roadways. No reflective materials or coatings are associated with this project. The construction activities are limited to daylight hours unless an emergency occurs, and the amount of security lighting needed during construction will be minimal. Therefore, with no permanent aboveground features, it is not anticipated that the site would create any new permanent sources of light or glare. No significant impact associated with lighting or glare can be identified and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – The proposed project footprint is located adjacent to the foothills of the Little San Bernardino Mountains. The area to the south, east, and west of the project site is urbanized, and neither the project footprint nor the adjacent and surrounding properties are designated for agricultural use; no agricultural activities exist in the project area; and there is no potential for impact to any agricultural uses or values as a result of project implementation. According to the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, no prime farmland, unique farmland, or farmland of statewide importance exists within the vicinity of the proposed project (Figure II-1). No adverse impact to any agricultural resources would occur from implementing the proposed Project. No mitigation is required.
- b. *No Impact* – The project footprint is not now included in a Williamson Act contract or an Agricultural Preserve. Based on these facts, the proposed project will not cause a significant direct impact or

conflict with the Williamson Act or an existing agricultural use. The project footprint is not currently being farmed and the land use designations support R-L: Residential Low (Up to 6.0 DU/AC) and V-S: Visitor-Serving and the zoning classifications support R-L: Residential Low, VS-C: Visitor-Serving Commercial, and VS-M: Visitor-Serving Mixed uses. Furthermore, the surrounding uses are not agricultural in nature. Furthermore, the City of Desert Hot Springs does not have any current land use designations or zoning classifications for agricultural use. According to the Riverside County Williamson Act Lands Map from the Williamson Act Program (2007), there are no sites within the project footprint are under a Williamson Act Land Conservation Contract. Therefore, no potential for indirect effects on agricultural resources or values would occur due to implementation of the Sewer Improvement Project.

- c. *No Impact* – There are no existing zoning ordinances that pertain to forest land, timberland, or timberland zoned Timberland Production. The land use designations support R-L: Residential Low (Up to 6.0 DU/AC) and V-S: Visitor-Serving and the zoning classifications support R-L: Residential Low, VS-C: Visitor-Serving Commercial, and VS-M: Visitor-Serving Mixed uses. Furthermore, the surrounding uses are not related to forestry uses. Additionally, according to the City of Desert Hot Springs General Plan, there are no land use designations that pertain to forest land, timberland, or timberland zoned Timberland Production. Therefore, the no potential for indirect effects to existing zoning for forest land, timberland, or timberland zoned Timberland Production would occur due to implementation of the Sewer Improvement Project.
- d. *No Impact* – As described in the preceding evaluation, there are no forest lands within the project area, which is because the project area is urbanized and is a low-elevation desert. No potential for loss of forest land would occur if the project is implemented. No mitigation is required.
- e. *No Impact* – Because the project site and surrounding area do not support either agricultural or forestry uses and, furthermore, because the project site and environs are not designated for such uses, implementation of the proposed project would not cause or result in the conversion of farmland or forest land to alternative use. No adverse impact would occur. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the following technical study: *Air Quality and GHG Impact Analyses, Mission Springs Water District, Areas H and I Sewer Improvement Project, Desert Hot Springs, California* dated January 18, 2021 prepared by Giroux & Associates. This technical study is provided as Appendix 1 to this document.

Background

Climate

The proposed project site is in the Coachella Valley Planning Area (CVPA) of the Salton Sea Air Basin (SSAB). The SSAB was part of the Southeast Desert Air Basin (SEDAB) until May, 1996 when the SSAB was created. The project site is in the hottest and driest part of California. The climate is characterized by hot, dry summers and relatively mild winters. Rainfall is scant in all seasons, so differences between the seasons are characterized principally by differences in temperature. Average annual precipitation in the air basin ranges from 2 to 6 inches per year.

Seasonal temperature differences in the basin are large, confirming the absence of marine influences due to the blocking action of the mountains to the west. Average monthly maximum temperatures in the project vicinity range from 108°F in July to 57°F in January. The average monthly minima range from about 40°F in January to about 80°F in July.

During much of the year, California is covered by a moderately intense high-pressure system. In winter, the Pacific High retreats to the south, so that frontal systems from the North Pacific can move onto the California coast. On average, 20 to 30 frontal systems pass through California each winter. The first front usually arrives around the middle of October, and the average period of frontal activity is five to six months. Most of these systems are relatively weak by the time they reach the SSAB, however, and they become more diffuse as they move southeastward.

Air Quality Standards

Existing air quality is measured at established South Coast Air Quality Management District (SCAQMD) air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table III-1. Because the State of

California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

**Table III-1
 AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O3) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM2.5) ⁹	24 Hour	–	–	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15.0 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO2) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO2) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Flourescence; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Lead ^{8,12,13}	30-Day Average	1.5 µg/m ³	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Footnotes

- 1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- 2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$, is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- 9 On December 14, 2012, the national PM2.5 primary standard was lowered from 15 $\mu\text{g}/\text{m}^3$ to 12.0 $\mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at 35 $\mu\text{g}/\text{m}^3$, as was the annual secondary standard of 15 $\mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primarily and secondary) of 150 $\mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 11 On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

**Table III-2
 HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS**

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	<ul style="list-style-type: none"> Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. Natural events, such as decomposition of organic matter. 	<ul style="list-style-type: none"> Reduced tolerance for exercise. Impairment of mental function. Impairment of fetal development. Death at high levels of exposure. Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> Motor vehicle exhaust. High temperature stationary combustion. Atmospheric reactions. 	<ul style="list-style-type: none"> Aggravation of respiratory illness. Reduced visibility. Reduced plant growth. Formation of acid rain.
Ozone (O ₃)	<ul style="list-style-type: none"> Atmospheric reaction of organic gases with nitrogen oxides in sunlight. 	<ul style="list-style-type: none"> Aggravation of respiratory and cardiovascular diseases. Irritation of eyes. Impairment of cardiopulmonary function. Plant leaf injury.
Lead (Pb)	<ul style="list-style-type: none"> Contaminated soil. 	<ul style="list-style-type: none"> Impairment of blood function and nerve construction. Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	<ul style="list-style-type: none"> Stationary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions. 	<ul style="list-style-type: none"> Reduced lung function. Aggravation of the effects of gaseous pollutants. Aggravation of respiratory and cardio respiratory diseases. Increased cough and chest discomfort. Soiling. Reduced visibility.
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> Fuel combustion in motor vehicles, equipment, and industrial sources. Residential and agricultural burning. Industrial processes. Also, formed from photochemical reactions of other pollutants, including NO_x, sulfur oxides, and organics. 	<ul style="list-style-type: none"> Increases respiratory disease. Lung damage. Cancer and premature death. Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> Combustion of sulfur-containing fossil fuels. Smelting of sulfur-bearing metal ores. Industrial processes. 	<ul style="list-style-type: none"> Aggravation of respiratory diseases (asthma, emphysema). Reduced lung function. Irritation of eyes. Reduced visibility. Plant injury. Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Baseline Air Quality

In the CVPA portion of the SSAB, air quality planning, enforcement and monitoring responsibilities are carried out by the South Coast Air Quality Management District (SCAQMD). Existing and probable future levels of air quality around the project area can be best inferred from ambient air quality measurements conducted by the SCAQMD at the Indio and Palm Springs air quality monitoring stations. In Indio, ozone and 10 microns or less in diameter, (respirable) particulates called PM-10, are monitored. These two pollutants are the main air pollution problems in the CVPA portion of the SSAB. Vehicular pollution levels such as carbon monoxide (CO) and nitrogen dioxide (NO₂) are monitored at Palm Springs. Levels of CO and NO₂ at the project site are likely lower than those monitored in Palm Springs. However, because CO and NO₂ levels in Palm Springs are well within acceptable limits, their use to characterize the project site

introduces no complications. The last four years of published data from Indio and Palm Springs stations are summarized in Table III-3. The following conclusions can be drawn from these data:

- Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated less than one percent of all days in the last four years near Indio. The 8-hour state ozone standard has been exceeded an average of 11 percent of all days per year in the same time. The Federal eight-hour ozone standard is violated on around eight percent of all days per year. Ozone levels are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.
- Carbon monoxide (CO) measurements near the project site have declined throughout the last decade, and 8-hour CO levels were at their lowest in 2017. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum CO levels at the closest air monitoring station are less than 25 percent of their most stringent standards because of continued vehicular improvements.
- PM-10 levels as measured at Indio, have exceeded the state 24-hour standard on 12 percent of all measurement days in the last four years, but the national 24-hour particulate standard has not been exceeded during the same period. The state standard is considerably more restrictive.
- A fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There have no violations of the 24-hour federal PM-2.5 standard in recent years. With dustier conditions along the I-10 Corridor, there may be occasional violations of PM-2.5 standards at the project site.

Table III-3
AIR QUALITY MONITORING SUMMARY
(Days Standards were Exceeded and Maximum Observed Concentrations 2015-2018)

Pollutant/Standard	2015	2016	2017	2018
Ozone ^a				
1-Hour > 0.09 ppm (S)	2	8	4	4
8-Hour > 0.07 ppm (S)	27	44	49	43
8- Hour > 0.075 ppm (F)	12	27	28	43
Max. 1-Hour Conc. (ppm)	0.099	0.107	0.106	0.103
Max. 8-Hour Conc. (ppm)	0.089	0.093	0.091	0.087
Carbon Monoxide ^b				
1-hour > 20. ppm (S)	0	0	0	0
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.5	0.5	1.1	0.7
Nitrogen Dioxide ^b				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max 1-hour Conc. (ppm)	0.04	0.04	0.04	0.04
Respirable Particulates (PM-10) ^a				
24-hour > 50 µg/m ³ (S)	56/313	43/363	43/353	27/361
24-hour > 150 µg/m ³ (F)	0/313	0/363	0/363	0/361
Max. 24-Hr. Conc. (µg/m ³)	137.	128.	146.	41.
Ultra-Fine Particulates (PM-2.5) ^a				
24-Hour > 35 µg/m ³ (F)	0/115	0/110	0/122	0/118
Max. 24-Hr. Conc. (µg/m ³)	25.8	18.8	28.7	15.0

(S) = state standard, (F) = federal standard
^aData from Indio monitoring station; ^bData from Palm Springs air monitoring station.
 Source: SCAQMD Air Monitoring Summaries.

Air Quality Planning

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, PM2.5, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the California Air Resources Board (CARB).

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). The most current regional attainment emissions forecast for ozone precursors (ROG and NOx) and for carbon monoxide (CO) and for particulate matter are shown in Table III-4. Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The SCAQMD adopted an updated clean air “blueprint” in August 2003. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated. With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. The attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

**Table III-4
 SOUTH COAST AIR BASIN EMISSIONS FORECASTS (Emissions in tons/day)**

Pollutant	2015 ^a	2020 ^b	2025 ^b	2030 ^b
NOx	357	289	266	257
VOC	400	393	393	391
PM-10	161	165	170	172
PM-2.5	67	68	70	71

^a2015 Base Year.; ^bWith current emissions reduction programs and adopted growth forecasts.
 Source: California Air Resources Board, 2013 Almanac of Air Quality

AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board in March, 2017, and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NO_x, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 µg/m ³)	2025
8-hour ozone (75 ppb)	2024 (old standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)
24-hour PM-2.5 (35 µg/m ³)	2019

The key challenge is that NO_x emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NO_x control measures are adopted and implemented, ozone attainment goals may not be met.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing sewer pipeline installation projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

Significance Thresholds Used in This Document

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects in the Coachella Valley portion of the SCAQMD with daily emissions that exceed any of the following emission thresholds are to be considered significant under CEQA guidelines.

**Table III-5
 DAILY EMISSIONS THRESHOLDS**

Pollutant	Construction¹	Operations²
ROG	75	75
NOx	100	100
CO	550	550
PM-10	150	150
PM-2.5	55	55
Sox	150	150
Lead	3	3

¹ Construction thresholds apply to both the SCAB and the Coachella Valley (Salton Sea and Mojave Desert Air Basins).

² For Coachella Valley the mass daily emissions thresholds for operation are the same as the construction daily emissions thresholds.

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Sensitive Uses

The project will occur within various roadways generally located south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road. The southern boundary of the project site is about a half mile south of Hacienda Avenue.

The gross project area encompasses about 220 acres within the City of Desert Hot Springs, though the area of disturbance (trenches for installing the sewer line) is much less. The area is primarily residential with a few spa hotels. Most homes have at least a 50-foot setback to the roadway centerline.

Impact Analysis

- a. **Less Than Significant Impact** – Projects such as the proposed installation of new sewers (30,000 LF of sewer pipeline) does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. This makes sense since, once installed, the sewers do not generate new emissions. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use are the primary yardsticks by which impact significance of planned growth is determined. Based on the analysis of the City’s General Plan Land Use section, the proposed project is consistent with the adopted City’s General Plan. Thus, the proposed project is consistent with regional planning forecasts maintained by the SCAG regional plans. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less than significant only because of consistency with regional growth projections. Air quality impact significance for the proposed project

has therefore been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.

- b. *Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions include fugitive dust from construction activities (i.e., site prep, demolition, grading) and exhaust emissions at the project site. Long-term emissions generated by future operation of the proposed pipeline are negligible as additional operation will not require a new source of energy to operate. Energy is not anticipated to be required, though the proposed operations and maintenance activities in the future include energy consumption and trips generated by the future development. It is anticipated that existing conveyance systems (lift stations and/or other appurtenances) will require greater energy to accommodate the sewage conveyed by the new pipelines, but this increase in energy demand would be minimal. No additional energy demand is anticipated because the proposed sewer would operate solely by gravity and will continue via gravity to the treatment plant.

Construction Emissions

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

It is assumed that installation of 30,000 lineal feet of sewer line will occur over 160 days of construction over a period of about 8 months. The final activity associated with the sewer installation is repaving of roads disturbed by the construction. This is anticipated to occur over a 30 day period. Construction is assumed to begin in the summer of 2021.

Estimated construction emissions were modeled using CalEEMod2016.3.2 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled using default construction equipment and schedule for a project of this size using input from the project engineer as shown in Table III-6.

**Table III-6
 CONSTRUCTION ACTIVITY EQUIPMENT FLEET**

Phase Name and Duration	Equipment
Demo Roadway and Trench 2 months	1 Loader/Backhoe
	2 Trencher
	1 Concrete Saw
Install Pipe 6 months	2 Forklifts
	1 Welder
Backfill and Pave 1 month	1 Loader/Backhoe
	2 Concrete Mixers
	1 Paver
	1 Loader/Backhoes
	1 Roller

Utilizing this indicated equipment fleet and durations shown in Table III-6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table III-7.

**Table III-7
 CONSTRUCTION ACTIVITY EMISSIONS
 MAXIMUM DAILY EMISSIONS (pounds/day)**

Maximal Construction Emissions	ROG	NOx	CO	SO ₂	PM-10	PM-2.5
2021 Unmitigated	1.2	10.2	10.2	0.0	5.5	3.2
2021 Mitigated	1.2	10.2	10.2	0.0	3.0	1.8
2022 Unmitigated	0.9	7.6	10.1	0.0	0.6	0.4
2022 Mitigated	0.9	7.6	10.1	0.0	0.6	0.4
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds without the need for added mitigation. Mitigated conditions reflect dust suppression associated with twice daily watering during demo and grading. However, though construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. As such, the following mitigation measure shall be implemented:

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- **Apply soil stabilizers to inactive areas.**
- **Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.**
- **Stabilize previously disturbed areas if subsequent construction is delayed.**
- **Apply water to disturbed surfaces and haul roads 3 times/day.**
- **Replace ground cover in disturbed areas quickly.**
- **Reduce speeds on unpaved roads to less than 15 mph.**
- **Trenches shall be left exposed for as short a time as possible.**
- **Identify proper compaction for backfilled soils in construction specifications.**

This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

AIR-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- **Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.**
- **Contactors shall utilize Tier 4 or better heavy equipment.**
- **Enforce 5-minute idling limits for both on-road trucks and off-road equipment.**

With the above mitigation measures, any impacts related to construction emissions are considered less than significant. No further mitigation is required.

National Environmental Policy Act (NEPA) Conformity

Annualized construction activity emissions were calculated by assuming all construction activities would occur during the same calendar year to represent a worst-case condition. The calculated emissions were then compared to the EPA *de minimis* emission thresholds that would allow for a federal conformity finding with Section 176c of the Clean Air Act.

If the project-related emissions from construction and operations are less than specified “*de minimis*” levels, no further SIP consistency demonstration is required. There are no operational emissions associated with this project. The SCAB Coachella Valley is designated as a “extreme” non-attainment area for the federal 8-hour ozone standard. The basin is a non-attainment area for PM-2.5. Based upon these designations, the following emissions levels are presumed evidence of SIP conformity:

VOC/ROG	-	10 tons/year
NOx	-	10 tons/year
PM-2.5	-	100 tons/year
PM-10 ¹	-	70 tons/year
SO ₂	-	100 tons/year

Annual construction emissions were calculated with the CalEEMod computer model. Maximum annual project-related air pollution emissions relative to federal standard attainment designations and appropriate *de minimis* thresholds are shown in Table III-8.

**Table III-8
 TOTAL ANNUAL CONSTRUCTION EMISSIONS
 (TONS/YEAR)**

Activity	ROG	NOx	CO	SO ₂	PM-10	PM-2.5	CO ₂
Maximal Construction Emissions							
2021	0.05	0.38	0.42	0.00	0.14	0.08	55.55
2022	0.03	0.22	0.29	0.00	0.02	0.01	40.48
Total	0.08	0.60	0.71	0.00	0.16	0.09	96.03
NEPA Threshold	10	10	100	100	70	100	-

Maximum annual emissions are much less than their associated *de minimis* thresholds. A formal SIP consistency analysis is not required.

Operational Emissions

The operation of the pipelines will not require a new source of energy to operate. This is because the new sewer pipelines will connect to MSWD’s existing wastewater conveyance system, which has adequate capacity to serve Areas H and I. It is anticipated that existing conveyance systems (lift stations and/or other appurtenances) will require some additional energy to accommodate the sewage conveyed by the new pipelines, but this increase in energy demand can be accommodated by existing systems. No additional energy demand is anticipated because the proposed sewer would operate solely by gravity and will continue via gravity to the treatment plant. Therefore, no significant operational air quality emissions are anticipated to be generated by the proposed project.

Conclusion

With the incorporation of mitigation measures **AIR-1** and **AIR-2**, the development of the Areas H and I Sewer Improvement Project would have a less than significant potential to result in a cumulatively

¹ Air quality in Coachella Valley now meets the national PM10 standards. A request for redesignation to attainment has been submitted to EPA (2020): <https://ww3.arb.ca.gov/regact/2021/sad20/appc.pdf>

considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- c. *Less Than Significant With Mitigation Incorporated* – The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board’s Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD’s Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project, the closest receptor 25-meter distance was used.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites for varying distances. For this site, the most stringent thresholds for a one-acre site were utilized.

The following thresholds and emissions in Table III-9 are therefore determined (pounds per day):

**Table III-9
 LST AND PROJECT EMISSIONS (pounds/day)**

LST Coachella Valley	CO	NOx	PM-10	PM-2.5
LST Threshold	878	132	4	3
Max On-Site Emissions				
Unmitigated	10	10	5	3
Mitigated	10	10	3	2
Exceeds Threshold?	No	No	No	No

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in Table III-9, LST impacts are less than significant.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure. Therefore, the proposed project would have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

- d. *Less Than Significant Impact* – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts particularly given that the sewer pipeline will be located below ground. Project operations (pumping) are an essentially closed system with negligible odor potential. Therefore, impacts under this issue are considered less than significant. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information is provided based on a Biological Resources Assessment, Jurisdictional Delineation Report, and Land Use Consistency of the project site. The assessment was conducted by Jacobs Engineering Group, Inc. dated March 2021 and is titled “Mission Springs Water District Areas H and I Sewer Improvements Project Biological Resources Assessment, Jurisdictional Delineation Report and Land Use Consistency Analysis.” The following information is abstracted from the Biological Resources Assessment (BRA) provided as Appendix 2.

General Site Conditions

The project site is within the City of Desert Hot Springs. The Desert Hot Springs area is situated in the northwestern portion of the Coachella Valley and is bordered on the north and northeast by the Little San Bernardino Mountains, on the east/southeast by the Seven Palms Valley and Edom Hills and on the west by the San Bernardino Mountain foothills. The elevation of the project area ranges from approximately 1,040 feet above mean sea level (amsl) near the southwestern limits of the project area to 1,250 feet amsl near the northeastern-most limits.

Hydrologically, the project area is situated within the Miracle Hill Hydrologic Sub-Area (HSA 719.43). The Miracle Hill HSA comprises a 44,525-acre drainage area, within the larger Whitewater River Watershed (HUC 18100201). The Whitewater River is the major hydrogeomorphic feature within the Whitewater River

Watershed and is one of the main tributaries to the Salton Sea. The nearest tributary to the Whitewater River is Morongo Wash, which is approximately 2 miles west of the project area at its closest point.

Soils within the project area are comprised mostly of Carsitas gravelly sand, 0 to 9 percent slopes, and Carsitas gravelly sand, 9 to 30 percent slopes. Carsitas family soils consist of gravelly sand that is comprised of gravelly alluvium derived from granite. This soil type is excessively drained, with a low to very low runoff class and does not have a hydric soil rating.

The project area is entirely within an urban environment consisting of single-family residential development and is surrounded by residential development and undeveloped land. Habitat within the surrounding undeveloped areas consist mostly of Mojave mixed woody scrub and Sonoran mixed woody and succulent scrub plant communities.

Conclusion

Sensitive Biological Resources

No sensitive species were observed within the project area during the reconnaissance-level field survey and due to the environmental conditions on site, none are expected to occur. The project area is completely disturbed, consisting of paved streets and previously graded, compact bare ground and due to the environmental conditions on site and the adjacent disturbances, the project area is likely not suitable to support any of the special status wildlife species that have been documented in the project vicinity (within approximately 3 miles), including the federally listed as endangered Coachella Valley milk-vetch, the state and federally listed as threatened Mojave desert tortoise, the state listed as endangered and federally listed as threatened Coachella Valley fringe-toed lizard, and the California Species of Special Concern (SSC) Burrowing owl (BUOW).

The project area does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the project will not result in any loss or adverse modification of Critical Habitat. Additionally, the project will not impact any Multiple Species Habitat Conservation Plan (MSHCP) Conservation Areas. The Coachella Valley milk-vetch, Mojave desert tortoise, and Coachella Valley fringe-toed lizard are all Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) Covered Species. The CVMSHCP provides “take” authorization for Covered Species during otherwise lawful activities, by providing for the conservation of the Covered Species. The District and the City of Desert Hot Springs are both signatories to the CVMSHCP. Since the Coachella Valley milk-vetch, Mojave desert tortoise, and Coachella Valley fringe-toed lizard are all Covered Species under the CVMSHCP and the project will not impact any MSHCP Conservation Areas or United States Fish and Wildlife Service (USFWS) designated Critical Habitat for Coachella Valley milk-vetch, “take” authorization is provided for any potential project-related impacts to these species.

Nesting Birds

There is habitat within the project area that is suitable to support nesting birds, including both vegetation and man-made structures. Most native bird species are protected from unlawful take by the Migratory Bird Treaty Act (MBTA). In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through September 1st. However, if all work cannot be conducted outside of nesting season, mitigation is recommended.

Jurisdictional Waters

The result of the jurisdictional waters assessment is that there are no wetland or non-wetland waters of the United States (WOTUS) or waters of the State potentially subject to regulation by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and/or Porter Cologne Water Quality Control Act, or the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code (FGC), respectively. Therefore, the project will not impact any jurisdictional waters and no state or federal jurisdictional waters permitting will be required.

Land Use Designations

The project is within the CVMSHCP boundary. The nearest Conservation Areas are approximately 0.4 mile northeast (Upper Mission Creek/Big Morongo Canyon Conservation Area) and 0.9 mile southeast (Long Canyon Conservation Area) of the project area, respectively. MSWD should be prepared to pay the MSHCP fees and restrict all project related impacts to existing right-of-way and/or other areas outside of the Conservation Areas. No other conservation or avoidance measures are expected, and the project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.

Impact Analysis

- a. *Less Than Significant Impact* – Implementation of the proposed project is not anticipated to have a potential for an adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. As stated above, no sensitive species were observed within the project area during the reconnaissance-level field survey and due to the environmental conditions on site, none are expected to occur. The project area is completely disturbed, consisting of paved streets and previously graded, compact bare ground and due to the environmental conditions on site and the adjacent disturbances, the project area is likely not suitable to support any of the special status wildlife species that have been documented in the project vicinity (within approximately 3 miles), including the federally listed as endangered Coachella Valley milk-vetch, the state and federally listed as threatened Mojave desert tortoise, the state listed as endangered and federally listed as threatened Coachella Valley fringe-toed lizard, and the California SSC BUOW. There is no suitable habitat for the above species within the project site. Given that the proposed project would not impact any CVMSHCP Conservation Areas, under which the Coachella Valley milk-vetch, Mojave desert tortoise, and Coachella Valley fringe-toed lizard are all CVMSHCP Covered Species and CVMSHCP provides “take” authorization for Covered Species during otherwise lawful activities, by providing for the conservation of the Covered Species (refer to the discussion under issue “e” below). No other sensitive species have been identified as having a potential to exist within or be impacted by the proposed project. Therefore, the proposed project would have a less than significant potential to result in 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. No mitigation is required.
- b. *Less Than Significant Impact* – Implementation of the proposed project has minimal potential to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. As stated in the BRA provided as Appendix 2 prepared by Jacobs, the project area does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the Project will not result in any loss or adverse modification of Critical Habitat. Furthermore, no intermittent or ephemeral dry washes that would meet the definitions of State and federal jurisdictional waters as defined by Section 1600 of the State of California FGC or “Waters of the United States” (WoUS) as defined by Section 404 of the Clean Water Act (CWA) occur on the project site. Therefore, no regulatory permits from these agencies will be required for this project. Based on the field survey conducted by Jacobs and the information contained in Appendix 2, no significant impacts to riparian habitat or other sensitive communities are anticipated to occur as a result of implementation of the proposed project.
- c. *No Impact* – According to the data gathered by Jacobs in Appendix 2, no federally protected wetlands occur within the project footprint. Therefore, implementation of the proposed project will have no potential to impact state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No mitigation is required.
- d. *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the project site, the project will not substantially interfere with the movement of any native resident or migratory species

or with established native or migratory wildlife corridors, or impede the use of native nursery sites. Once constructed, the entirety of the project will operate belowground as a functioning sewer collection pipeline system. However, the State does protect all migratory and nesting native birds. Further, the project site and surrounding area consists of habitat that is suitable to support nesting birds. Thus, the project area may include areas that function as nesting locations for native birds. To avoid impacting nesting birds as required by the MBTA and California FGC, the following mitigation measure shall be implemented:

BIO-1 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

Thus, with implementation of the above measure, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact.

- e. *Less Than Significant Impact* – Development of the proposed project would have a less than significant potential to conflict with any local policies or ordinances protecting biological resources. Impacts to biological resources have been addressed above under issues IV(a-d). Due to the nature of the proposed project—installing pipelines belowground within mostly within existing roadways—no trees or other biological resources that might be protected exist within the project footprint. Therefore, the potential for the project to conflict with local policies or ordinances pertaining to biological resources would be considered less than significant.
- f. *Less Than Significant Impact* – Please refer to the discussion under Conclusion and issue IV(a), above. The County of Riverside developed the CVMSHCP to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth. The CVMSHCP sets Conservation Goals and Objectives to ensure the conservation of the Covered Species and conserved natural communities in the MSHCP Reserve System. In addition to setting Conservation Goals and Objectives for the Covered Species and conserved natural communities, the MSHCP has designated Core Habitat, Other Conserved Habitat, Essential Ecological Processes, and Biological Corridors and Linkages. The CVMSHCP area is divided into Conservation Areas based on a combination of ecological and jurisdictional factors. The CVMSHCP is intended to satisfy the legal requirements to authorize the “take” of species covered under the Plan during otherwise lawful activities, by providing for the conservation of the Covered Species. The BRA provided as Appendix 2 concluded that the project concluded that the project area is outside any CVMSHCP Conservation Areas and the nearest Conservation Areas are approximately 0.4-mile northeast (Upper Mission Creek/Big Morongo Canyon Conservation Area) and 0.9 mile southeast (Long Canyon Conservation Area) of the project area, respectively. Therefore, no conservation or avoidance measures are expected, and the project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect entitled “*Historical/Archaeological Resources Survey Report: Mission Springs Water District Areas H and I Sewer Improvement Project, City of Desert Hot Springs, Riverside County, California*” prepared by CRM TECH dated April 5, 2021 (Appendix 3). The following information is abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area.

Background

The Area of Potential Effects (APE) for the undertaking encompass the maximum extent of ground disturbance required during construction, which mostly coincides with the existing rights-of-way of the various public roadways along the pipeline routes. The overall extent of the undertaking, namely Sub Areas H and I, lies south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road, extending approximately a half-mile south of Hacienda Avenue. Improvements will occur within the following roadways: Agua Cayendo Road, Cuando Way, Oro Lomo Street, Suerte Way, Tunitas Road, Eliseo Road, Miracle Hill Road, Cerrita Way, Pequena Drive, Cielo Azul Way, Loma Vista Road, Hidalgo Street, Hermano Way, Inaja Street, Quinta Way, Monterico Road, Alameda Drive, Arena Blanca Road, Oris Drive, Key Way, and Monterey Road.

The vertical extent of the APE, represented by the maximum depth of ground disturbance associated with pipeline installation, will reach 10 feet below current ground surface in most of the APE, while excavation to the depth of approximately 15 feet will be necessary for pipeline installation under an existing drainage channel between Hidalgo Street and Quinta Way. The undertaking proposes no aboveground improvements that may introduce visual, atmospheric, or other indirect impacts. Therefore, the limits of the APE are constrained to only those areas where direct ground disturbances may occur. The APE lies within the east half of Section 32, T2S R5E, San Bernardino Baseline and Meridian.

The purpose of this technical study is to provide the MSWD and the SWCRB with the necessary information and analysis to determine whether the undertaking would have an adverse effect on any “historic properties,” as defined by 36 CFR 800.16(l), or “historical resources,” as defined by California PRC §5020.1(j), that may exist in the APE. To accomplish this objective, a cultural resources records search, historical and geoarchaeological background research, Native American consultation, and a systematic field survey were conducted.

Throughout the course of this study, no “historic properties” or “historical resources” were encountered within the APE boundaries. However, the research results indicate that a prehistoric Native American village site at Two Bunch Palms, designated Site 33-001246 in the California Historical Resources Inventory, lies in close proximity to the southwestern portion of the APE, while the southern portion of the APE is known to be the general location of famed early settler Cabot Yerxa’s (1883-1965) original homestead and trading post. Therefore, the potential for encountering buried archaeological deposits of

prehistoric or early historic origin during construction is considered to be moderate to high in the portion of the APE along Miracle Hill Road and the portion delineated by Hidalgo Street, Loma Vista Road, and Hermano Way.

Since the APE lies predominantly within the rights-of-way of paved public roadways, standard archaeological testing prior to the commencement of the undertaking does not appear to be a feasible approach to determine the presence or absence of subsurface cultural remains. In order to identify such remains in a timely manner and, if necessary, protect them from adverse effect from the undertaking, CRM TECH recommends that excavations and other ground-disturbing operations that will occur in the archaeologically sensitive area and reach beyond the roadbed fill—generally speaking the uppermost five feet of surface and near-surface soils—be conducted under the direction and close observation of a qualified archaeologist. If any potentially significant cultural remains are encountered, the mechanical excavations should be halted or diverted while an archaeological team recovers the materials through procedures consistent to a standard archaeological testing program.

Under this condition, the proposed undertaking may be cleared to proceed in compliance with Section 106 and CEQA provisions on cultural resources. No further cultural resources investigation is recommended for the rest of the undertaking unless project plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during earth-moving operations elsewhere within the APE, all work within a 100-foot radius of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. Any human remains unearthed during the project will need to be addressed in accordance with California Health and Safety Code §7050.5 and Public Resources Code §5097.98.

Impact Analysis

a&b. *Less Than Significant With Mitigation Incorporated* – CEQA establishes 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."

Per the above discussion and definition, archeological resources may be encountered during construction. This is because, as stated above, a prehistoric Native American village site at Two Bunch Palms, designated Site 33-001246 in the California Historical Resources Inventory, lies in close proximity to the southwestern portion of the APE, while the southern portion of the APE is known to be the general location of famed early settler Cabot Yerxa's (1883-1965) original homestead and trading post. Therefore, the potential for encountering buried archaeological deposits of prehistoric or early historic origin during construction is considered to be moderate to high in the portion of the APE along Miracle Hill Road and the portion delineated by Hidalgo Street, Loma Vista Road, and Hermano Way. In regards to historical resources, no "historic properties" or "historical resources" were encountered within the APE boundaries. In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the project:

- No historical resources within or adjacent to the project area have any potential to be disturbed as they are not within the proposed area in which the facilities will be constructed and developed, and thus, the project as it is currently proposed will not cause a substantial adverse change to any known historical resources.
- Archaeological deposits may be located in the soils underlying the roadways within which the proposed pipeline will be installed. Mitigation is required to minimize any potential impacts thereof.

CUL-1 In order to identify such archaeological deposits within the potentially sensitive areas of the APE—along Miracle Hill Road and the portion delineated by Hidalgo Street, Loma Vista Road, and Hermano Way—in a timely manner

and, if necessary, to protect such resources from adverse effect from the undertaking, any ground disturbance that will occur in the archaeologically sensitive area and reach beyond the roadbed fill—generally speaking the uppermost five feet of surface and near-surface soils—shall be conducted under the direction and close observation of a qualified archaeologist. If any potentially significant cultural remains are encountered, the mechanical excavations shall be halted or diverted while an archaeological team recovers the materials through procedures consistent to a standard archaeological testing program.

Furthermore, throughout the remainder of the APE, there is minimal potential to encounter cultural materials; however, unknown buried cultural materials cannot be discovered until excavation and earth moving take place, and may be discovered during earth-moving operations associated with the project. As such, the following mitigation measure shall be implemented:

CUL-2 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

With the above mitigation measures, the potential for impacts to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

- c. ***Less Than Significant With Mitigation Incorporated*** – As noted in the discussion above, no available information suggests that human remains may occur within the Area of Potential Effect (APE) and the potential for such an occurrence is considered very low. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human remains are encountered. Compliance with these laws is considered adequate mitigation for potential impacts, the following mitigation measure shall be implemented in relation to discovery and treatment of human remains:

CUL-3 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

With the incorporation of the above mitigation measure, potential for impact to discovery and treatment of human remains will be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. ENERGY: Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – During construction, the proposed project will utilize construction equipment that is CARB approved, minimizing emissions generated and electricity required to the extent feasible (as outlined under Section III, Air Quality, above). As stated in Section III, Air Quality, the construction of the proposed Sewer Improvement Project would require mitigation measures to minimize emissions impacts from construction equipment use. These mitigation measures also apply to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. These measures would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency.

Southern California Edison Company (SCE) is the primary distribution provider for electricity in the project area. According to the City of Desert Hot Springs General Plan Environmental Impact Report (General Plan EIR), in the 2018 fiscal year, SCE sold approximately 87,143 million kilowatt hours (kWh) of electricity; approximately 46% of the electricity that SCE delivered to customers came from carbon-free resources, including solar energy (approximately 13%), wind energy (approximately 13%), and geothermal energy (approximately 8%). The City’s General Plan EIR provides the following analysis related to new development under Chapter 4.6, Energy:

“New development and land use turn over would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CalGreen Code), which would decrease estimated electricity consumption in new and/or retrofitted structures. Additional electricity reductions would be achieved through the implementation of Mitigation Measure GHG-1C, which requires the adoption of a Zero Net Energy (ZNE) ordinance. The adoption and implementation of a ZNE ordinance would require increased building efficiency and the installation of renewable energy infrastructure (e.g., photovoltaic (PV) systems and/or windmills) to offset the building/structure’s energy consumption.”

A ZNE ordinance has not yet been adopted by the City. Furthermore, the proposed project would be required to comply with Title 24, Part 6, of the California Code of Regulations (the CalGreen Code). Additionally, in July 2013, the City of Desert Hot Springs adopted an Energy Action Plan (EAP), to which the project will be required to adhere. However, the operation of the pipelines will not require a new source of energy to operate. This is because the new sewer pipelines will connect to MSWD’s existing wastewater conveyance system, which has adequate capacity to serve Areas H and I. No additional energy demand is anticipated because the proposed sewer would operate solely by gravity and will continue via gravity to the treatment plant. No natural gas would be required to operate the proposed project, and trips to the project footprint would occur only on an as needed basis for maintenance purposes. As such, petroleum consumption associated with implementation of the Sewer Improvement Project would not be considered unnecessary, inefficient, or wasteful.

According to SCE's website², SCE is committed to delivering power reliably and to meet demand; SCE is expanding and upgrading the transmission and distribution networks to meet the region's growing demand for electricity, and improve grid performance, while meeting California's ambitious renewable-power goals. As such, it is anticipated that SCE will continue to have ample power supply to serve the construction of the project without the need for additional electrical capacity. Therefore, given the lack of energy required to operate the proposed project, it is not anticipated that the project would either result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts under these issues are considered less than significant.

²<https://www.sce.com/about-us/reliability/meeting-demand>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information is provided based on a Subsurface Soils Investigation prepared for the project site. The assessment was conducted by LOR Geotechnical Group, Inc. dated June 19, 2020 and is titled “*Subsurface Soils Investigation Areas H and I Sewer Improvement Project, Desert Hot Springs, California.*” The Soils Investigation is provided as Appendix 4a to this Initial Study.

a. i. Ground Rupture

Less Than Significant Impact – The project footprint is located in the City of Desert Hot Springs within the County of Riverside, which is situated within several active faults, including the North and South Branches of the San Andreas fault, which are considered to be Alquist-Priolo fault zones. Figure VII-1 shows where these faults are located as depicted in the City of Desert Hot Springs General Plan, which depicts faults within the City boundary as well as within and around its Sphere of Influence (SOI). According to Figure VII-1, the footprint is located within an Alquist-Priolo fault zone, the San Andreas Fault Zone, and is also delineated as being located within a Riverside County Designated

Fault Zone. Therefore, the proposed sewer pipelines would cross through an active fault zone. Underground pipelines are not typically susceptible to severe damage from fault rupture, depending on the severity of a seismic event. In the event that a strong earthquake were to occur, the proposed sewage conveyance pipeline could burst, causing sewage to leak. While damage to pipelines can occur, pipelines can be repaired and placed back into operation with no loss of human life. Therefore, the proposed project would have a less than significant potential to expose people or structures to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

ii. Strong Seismic Ground Shaking

Less Than Significant Impact – As stated in the discussion above, several faults run through the City, and as with much of southern California, the proposed pipelines will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future, particularly due to the site's location within two fault zones, as shown in Figure VII-1. As a result, and like all other development projects in the City and throughout the southern California region, the proposed project will be required to comply with all applicable seismic design standards contained in the 2019 California Building Code (CBC). Compliance with the CBC and the use of best management design practices will enable maximum structural integrity of the pipelines to be maintained in the event of an earthquake. As stated above, mitigation to prevent impacts from pipeline rupture will be implemented. However, generally, underground pipelines are not typically susceptible to severe damage from ground shaking. Many such facilities exist and function within areas susceptible to strong ground shaking effects. Therefore, given that the proposed project consists of pipelines that will be constructed mostly within existing roadways and that no structures will be developed in support of the proposed project, there is a less than significant potential for people or structures to be exposed to strong seismic ground shaking.

iii. Seismic-Related Ground Failure Including Liquefaction

Less Than Significant Impact – The three factors determining whether a site is likely to be subject to liquefaction include seismic shaking, type and consistency of earth materials, and groundwater level. Liquefaction of saturated cohesionless soils can be caused by strong ground motion resulting from earthquakes. Soil liquefaction is a phenomenon in which saturated, cohesionless soils lose their strength due to the build-up of excess pore water pressure during cyclic loading such as that induced by earthquakes. According to the City of Desert Hot Springs General Plan Seismic Hazards Map (Figure VII-2), the project site is located within a general area known to be susceptible to liquefaction. As with other ground failure potential, pipelines are not susceptible to significant adverse effects associated with liquefaction. Damage to pipelines can occur, but can be repaired and placed back into operation with no loss of human life. Therefore, potential impacts associated with seismic-related ground failure would be considered less than significant. No mitigation is required.

iv. Landslide

Less Than Significant Impact – According to the City of Desert Hot Springs General Plan EIR, Landslides are found along the perimeter of the City on properties abutting the surrounding hills and mountains. The proposed project footprint is located along the foothills of the Little San Bernardino Mountains; however, it is located along the relatively flat area just south of the foothills and is therefore assumed to be located within an area of low susceptibility to landslides. However, pipelines are not typically susceptible to significant adverse effects associated with landslides. Damage to pipelines can occur, but can be repaired and placed back into operation with no loss of human life. Therefore, potential impacts associated with landslides are considered less than significant. No mitigation is required.

- b. *Less Than Significant With Mitigation Incorporated* – The majority of the project area has been graded, compacted, and paved with asphalt because the proposed pipeline installation project will

occur mostly within existing roadways. The exception is an area that is not paved, consisting of compacted dirt to connect sewer pipeline from Hidalgo Street to Quinta Way. The proposed sewer improvement project will result in land disturbance in the areas that will require construction within roadways and adjacent rights-of-way to accommodate the trenching required to install the sewer pipeline. Adequate drainage facilities exist to accommodate existing drainage flows, and no change in drainage will result once the roadways are repaved and the pipelines are in place belowground. This project will result in the disturbance of more than one acre of land and will require filing a Notice of Intent (NOI), securing a National Pollutant Discharge Elimination System (NPDES), general construction stormwater discharge permit, and preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will include but not be limited to the following measures to mitigate potential impacts associated with erosion and surface water quality degradation during construction:

- GEO-1** *Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the Project site for future cleanup such that erosion does not occur.*
- GEO-2** *Excavated areas shall be backfilled and compacted such that erosion does not occur. Paved areas disturbed by this project shall be repaved in such a manner that roadways and other disturbed areas are returned to the pre-project conditions or better.*
- GEO-3** *All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the pipelines are being installed.*
- GEO-4** *The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.*

With implementation of the above mitigation measures, any impacts are considered less than significant. No further mitigation is necessary.

- c. *Less Than Significant With Mitigation Incorporated* – As stated under issues VII(a[iii]) and VII(a[iv]) above, the project footprint traverses through areas that are susceptible to landslides and liquefaction. This indicates that the project footprint and general area may be underlain by unstable soils, or be affected by subsidence, lateral spreading, or collapse. However, the proposed project consists of the installation of sewer pipelines within existing roadways and a small segment of compacted dirt, and pipelines are generally not susceptible to significant adverse effects associated with unstable soils. As stated under issues VII(a[iii]) and VII(a[iv]) above, damage to pipelines can occur, but can be repaired and placed back into operation with no loss of human life. Furthermore, the proposed project shall be required to implement the design measures outlined in the Subsurface Soils Investigation, which shall be implemented through the following measure, implementation of the project would not result in a significant impact from occurring under this issue:

- GEO-5** *Based upon the Subsurface Soils Investigation (Appendix 4a of this document), all of the recommendations identified in Appendix 4a (listed on pages 3-8) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site.*

The recommended measures outlined in the Subsurface Soils Investigation will ensure that any potential impacts regarding soil stability will be mitigated to a level of less than significant. Therefore, with implementation of the stabilizing measures identified in the site plan, the project would not 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

- d. *Less Than Significant Impact* – The entirety of the proposed project will be located underground. As stated throughout the Geology and Soils section of the Initial Study, pipelines are generally not subject to experiencing significant effects of soil instability or in this case, expansive soils. Damage to pipelines can occur, but can be repaired and placed back into operation with no loss of human life. Additionally, according to the United States Department of Agriculture (USDA) Natural Resources Conservation Service Web Soil Survey (Appendix 4b), the majority of the project area is underlain by gravelly sand type soils that are not considered expansive. However, a small portion of the project area at the north of Areas H and I is underlain by Chuckawalla very gravelly sandy clay loam (CoD), which may be considered expansive in nature. As stated above under VII(a[i]) and VII(a[ii]), mitigation to prevent impacts from pipeline rupture will be implemented. Expansive soils are typically in the clay soil family, which are present within the project footprint; however, while damage to pipelines can occur, damaged pipelines can be repaired and placed back into operation with no loss of human life. Given the above, the proposed project would have a less than significant potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- e. *Less Than Significant Impact* – The proposed project proponent is MSWD, and the overall purpose of the proposed Sewer Improvement Project is intended to connect area septic systems users to their wastewater collection service. No septic systems or alternative wastewater disposal systems are proposed as part of the project. Thus, because the project will be served by a municipal wastewater provider, no impacts related to the use of septic tanks or alternative water disposal systems will occur.
- f. *Less Than Significant With Mitigation Incorporated* – The potential for discovering paleontological resources during development of the project is considered somewhat likely based on the data gathered within the Cultural Resources Report provided as Appendix 3. The vast majority of the pipeline alignments are contained within the rights-of-way of existing public roadways, where typically the top five to six feet of soils are practically engineered fill that has been greatly disturbed by road construction and the installation of subsurface utility lines. MM **CUL-1** would ensure that any potential paleontological resources located in the known sensitive area are tested, recorded, and treated appropriately. However, in the areas that have not been delineated as sensitive within the project APE, and because these resources are located beneath the surface and can only be discovered as a result of ground disturbance activities, the following measure shall be implemented:

GEO-6 *Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the MSWD's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.*

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the following technical study: “*Air Quality and GHG Impact Analyses, Mission Springs Water District, Areas H and I Sewer Improvement Project, Desert Hot Springs, California*” dated January 18, 2021 prepared by Giroux & Associates. This technical study is provided as Appendix 1 to this document.

a&b. *Less Than Significant Impact* – California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07. AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions, are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e., company owned) and indirect sources (i.e., not company owned).

Thresholds of Significance

In response to the requirements of SB 97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of Project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to “select the model or methodology it considers most appropriate.” The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO₂ equivalent/year. In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions which recommended a threshold of 3,000 MT CO₂e for all land use projects. This 3,000 MT/year recommendation has been used as a guideline for this analysis. In the absence of an adopted numerical threshold of significance, Project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

Construction Activity GHG Emissions

The project is assumed to require less than one year for construction but will overlap two calendar years with construction commencing in the summer of 2021. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO₂ emissions identified in Table VIII-1.

**Table VIII-1
 CONSTRUCTION EMISSIONS (Metric Tons CO₂e)**

	CO₂e
Year 2021	56.6
Year 2022	40.5
Total	97.1
Amortized	3.2

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less than significant.

Consistency with GHG Plans, Programs, and Policies

The City of Desert Hot Springs adopted an Initial Study, Negative Declaration for a Climate Action Plan in 2013. The plan identifies 80 specific actions to reduce GHG emissions. However, the proposed project is GHG neutral and will not increase electrical consumption or require additional personnel or maintenance. The project could be considered GHG positive because it will eliminate the need to clean and maintain individual septic systems for 678 parcels (468 on-site septic systems).

Since the project results in GHG emissions below the recommended SCAQMD 3,000 metric ton threshold for any land use project, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – The project should not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; but it may 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 during construction. During construction, there is a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people and the environment. The following mitigation measure will be incorporated into the SWPPP prepared for the project and it can reduce such a hazard to a less than significant level:

HAZ-1 *All accidental spills or discharge of hazardous material during construction activities shall be reported to the Certified Unified Program Agency and shall be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately a licensed disposal or treatment facility. This measure shall be incorporated into the SWPPP prepared for the proposed project. Prior to accepting the site as*

remediated, the area contaminated shall be tested to verify that any residual concentrations meet the standard for future residential or public use of the site.

Additionally, roadways adjacent to and within the project footprint are public roads that can be used by any common carrier to or from the local area. For such transporters, the existing regulatory mandates ensure that the hazardous materials and any hazardous wastes transported to and from the Project site will be properly managed. These regulations are codified in Titles 8, 22, and 26 of the California Code of Regulations. For example, maintenance trucks for construction equipment must transport their hazardous materials in appropriate containers, such as tanks or other storage devices. In addition, the haulers must comply with all existing applicable federal, state and local laws and regulations regarding transport, use, disposal, handling and storage of hazardous wastes and material, including storage, collection and disposal. Compliance with these laws and regulations related to transportation will minimize potential exposure of humans or the environment to significant hazards from transport of such materials and wastes.

The proposed project will install 30,000 LF of new sewer pipeline. The proposed pipeline will be installed underground within existing roadways and within a small section of compacted dirt; once constructed, the roadways will be repaved to their original condition and the segment of compacted dirt will be recompacted. Thus, once constructed, the pipelines will not require or result in transport, use, or disposal of hazardous materials. Therefore, with implementation of the identified mitigation measure, impacts are considered less than significant.

- c. *Less Than Significant Impact* – The proposed project footprint is located in close proximity to several schools, though all schools are located more than one quarter mile from the project footprint. The nearest schools are Cabot Yerxa Elementary School (west of the project footprint), Julius Corsini Elementary School (east of the project footprint), and Bubbling Wells Elementary School (south of the project footprint). As previously stated, the project will involve the use of petroleum products and exhaust emissions with construction activities, but will be minimal, as stated under the Air Quality Section of this document. The handling of all hazardous or potentially hazardous materials during construction would comply with all applicable federal, state, and local agencies and regulations pertaining to the handling and use of hazardous materials. Adherence to these policies and regulations, as well as the implementation of the above mitigation measures will ensure that the project 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 during either construction, and during operation no potential exists to handle such hazardous materials as the proposed sewer pipelines are located belowground. Any impacts under this issue are considered less than significant, and no mitigation is required.
- d. *Less Than Significant Impact* – The proposed project footprint is not located in an area that has been included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result it will not create a significant hazard to the public or environment. According to the California State Waterboard’s GeoTracker, which provides information regarding Leaking Underground Storage Tanks, there are no locations within a 2,500 foot radius of any of the proposed project facilities that is identified as Leaking Underground Storage Tank (LUST) site or Department of Toxic Substances (DTS) site (Figure IX-1 see GeoTracker figure), nor are there any remediated LUST or DTS cleanup sites. Furthermore, the nature of the proposed project is not such that persons working or residing in the area would be exposed to any hazards from any nearby contaminated sites, particularly as the proposed pipeline will be installed within existing, disturbed roadways. Therefore, because the project will not require excavation at depths that would encounter contaminated materials, the proposed pipeline replacement project is not anticipated to create a significant hazard to the population or to the environment from their implementation. Impacts are considered less than significant. No mitigation is required.

- e. *No Impact* – The Palm Springs International Airport is the closest airport to the proposed project and is located approximately 7.4 miles south of the proposed project. The project footprint is not located within an Influence Area identified in the Palm Springs International Airport section of the Riverside County Airport Land Use Commission’s Compatibility Plan.³ Given the large distance between the proposed project and nearby airports, project implementation would not result in a safety hazard for people residing or working in the project area. Furthermore, there are no private airstrips/public use airports located within two miles of the project site. Therefore, the development of the proposed Sewer Improvement Project would have no potential to result in a safety hazard or excessive noise for people residing or working in the project area.

- f. *Less Than Significant With Mitigation Incorporated* – The proposed project will be located within existing roadways within the City of Desert Hot Springs. The proposed Sewer Improvement Project will not be developed within any emergency response or evacuation route. Primary roadways within the project footprint that would be used during an emergency or evacuation order would be Hacienda Avenue (east-west), Palm Drive (north-south), and Mountain View Road (north-south). The proposed sewer pipeline segments are generally not located within these major roadways, with the exception of connecting a pipeline within Hacienda Avenue. At no time during the installation of pipeline will the entirety of this roadway be closed. The project would require one lane to be closed, which would allow for through-traffic so long as a traffic management plan is developed and implemented. As such, please refer to the Transportation/Traffic Section of this document, Section XVII. Mitigation to address any potential traffic disruption and emergency access issues on area roadways are included in this section. Impacts are reduced to a less than significant level with mitigation incorporated. No additional mitigation is required.

- g. *Less Than Significant Impact* – The proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The proposed project area is located adjacent to the Little San Bernardino Mountains, as such, the project is located adjacent to a high fire hazard zone within a State Responsibility Area (SRA) (Figure IX-2). However, the project will not construct any habitable structures. The proposed project will install 30,000 LF of new pipeline within existing roadways or otherwise underground. Pipelines are not susceptible to wildfire hazards and the development of the proposed pipeline will not increase the risk of wildfire hazards to nearby residences and structures. Therefore, though the proposed project is located adjacent to an area considered susceptible to wildfire hazards, because the entirety of the project will be installed belowground, the proposed project would have a less than significant expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. No mitigation is required.

³ <http://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/18-%20Vol.%201%20Palm%20Springs%20International.pdf>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* – The project proposes to install 30,000 LF of sewer pipeline. The area of disturbance from the construction of the pipeline will occur within existing rights-of-way including paved roadways and a compacted dirt alignment. Three main sources of potential violation of water quality standards or waste discharge requirements are as follows: from generation of municipal wastewater; from stormwater runoff; and potential discharges of pollutants, such as accidental spills. To address stormwater and accidental spills within this environment, any new project must ensure that site development implements a Storm Water Pollution Prevention Plan (SWPPP) to control potential sources of water pollution that could violate any standards or discharge requirements during construction and a Water Quality Management Plan (WQMP) to ensure that project-related surface runoff meets discharge requirements over the short- and long-term. In the short term, construction activities will have some potential to affect the quality of stormwater discharged from the project sites. Land disturbance activities could result in erosion and sedimentation immediately adjacent to the disturbed project alignment. Spills or leaks of petroleum products used by construction equipment could also potentially affect the quality of surface water. The project will be required to obtain a general construction National Pollutant Discharge Elimination

System (NPDES) stormwater discharge permit prior to the start of construction. Obtaining coverage under the General Construction NPDES permit requires the preparation and implementation of the SWPPP, which specifies Best Management Practices (BMPs) that must be implemented during construction of this specific project. Compliance with the terms and conditions of the NPDES and the SWPPP, as well as the WQMP, is mandatory and is judged adequate mitigation by the regulatory agencies for potential impacts to stormwater during construction activities. Implementation of the following mitigation measure is also considered adequate to reduce potential impacts to stormwater runoff to a less than significant level.

HYD-1 MSWD shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:

- **The use of silt fences;**
- **The use of temporary stormwater desilting or retention basins;**
- **The use of water bars to reduce the velocity of stormwater runoff;**
- **The use of wheel washers on construction equipment leaving the site;**
- **The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;**
- **The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and**
- **Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.**

Once constructed, the proposed pipeline will operate underground within existing road rights-of-way that will be repaved to their original or better condition, as will the area of compacted dirt within which a small portion of the alignment will be installed. Therefore, with no anticipated operational impacts or substantial change in the environment from implementation of the proposed project, implementation of these mandatory Plans and their BMPs, as well as MMs **HYD-1** and **HAZ-1** above, will prevent a violation of any water quality standards or waste discharge.

- b. *Less Than Significant Impact* – The project does not propose the installation of any water wells that would directly extract groundwater. The proposed project will install a sewer conveyance pipeline that will connect the GQPP Areas H and I to the Horton WWTP. Construction of the new sewer conveyance pipeline alignment would require approximately 5,000 gallons of potable water each day for a maximum of about 160 days, which equates to the construction of the conveyance pipeline requiring about 800,000 gallons of water (2.4-acre feet) to support the pipeline installation within existing roadways. This amount is considered nominal when compared to the availability of supply from the project proponent, MSWD based on a review of their 2015 Urban Water Management Plan (UWMP). Once the pipeline has been installed, the roadways will return to their original condition with no new impervious area resulting from this effort that would interfere with groundwater recharge in the area. No aboveground features are proposed as part of this project that would require the use of potable water. Therefore, the proposed project is not anticipated to substantially deplete groundwater supplies such that there would be a net deficit in aquifer volume or lowering of the groundwater table. Impacts under this issue are considered less than significant and no mitigation is required.

- c
- (i-iii). *Less Than Significant Impact* – No substantial impact to drainage patterns or structures will result from implementing this project. The roadways within which the pipeline will be installed will be returned to their original condition upon completion of the placement of each section of sewer pipeline, as will the area of compacted dirt within which a small portion of the alignment will be installed. The roadways will generate essentially the same amount of stormwater as they do at present because no expansion of roadway or change in drainage patterns are anticipated. Conveyance of stormwater to drainage alignments and storm drains within these roadways will remain intact and unchanged once construction has been completed. No substantial change to the existing drainage pattern will result from project implementation. Adequate drainage facilities exist to accommodate pre- and post-project drainage flows, and will therefore result in a less than significant impact. Based on the data outlined above, this project will not substantially alter the existing drainage pattern of the site or area; will not substantially alter the course of a stream or river in such a manner that will result in substantial erosion or siltation either on or off the project footprint; or contribute runoff water that could exceed the capacity of the existing drainage facilities. No additional sources of polluted runoff will result and impacts are considered less than significant. No additional mitigation is required.
- c
- (iv). *No Impact* – According to the City of Desert Hot Springs General Plan Flood Hazard Map (Figure X-1), the proposed project is located within Zone X (areas of 0.2% annual chance flood (500-year flood); and areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual flood chance. There is also a portion of the project footprint that is not mapped as being located within a flood hazard zone. The proposed project would install pipeline underground within existing roadways or within the area of compacted dirt within which a small portion of the alignment will be installed. This project will not substantially alter the existing drainage pattern of the site or area because the roadway and compacted alignment will be returned to their original condition once the pipeline has been installed. As such, once installed underground, the existing drainage pattern will be maintained, and given that no project components will be installed aboveground, the proposed project would have no potential to impede or redirect flows. No mitigation is required.
- d. *Less Than Significant Impact* – As stated above under issue X(c[iv]), the proposed project is located within Zone X (areas of 0.2% annual chance flood (500-year flood)); and areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual flood chance. There is also a portion of the project footprint that is not mapped as being located within a flood hazard zone. The project site is not located near any large bodies of water, so impacts associated with seiche or tsunami cannot occur. Mudflow typically occurs on hillsides and the proposed project is not located on a hillside or in an area exposed to significant mudflow. Once the proposed pipeline is installed belowground, the roadways and area of compacted dirt within which a small portion of the alignment will be installed, will be returned to their original condition or better. With no aboveground structures proposed, the development of the proposed Sewer Improvement Project would not risk release of pollutants due to project inundation. Impacts under this issue are considered less than significant. No mitigation is required.
- e. *No Impact* – The proposed project is located within the Desert Hot Springs subbasin of the Coachella Valley Groundwater Basin. The Desert Hot Springs subbasin has been designated as very low-priority, by the Department of Water Resources (DWR).⁴ The Sustainable Groundwater Management Act (SMGA) “requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline.”⁵ Given that the project is located within a subbasin that is considered very low priority, no conflict or obstruction of a water quality control plan or sustainable groundwater

⁴ <https://www.cvwd.org/357/Sustainable-Groundwater-Management-Act>

⁵ <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>

management plan is anticipated. Furthermore, the proposed project is designed to enable MSWD to improve groundwater quality by removing septic systems within their service area. Because the project would install 30,000 LF of sewer pipeline to connect Areas H and I to MSWD's wastewater collection and treatment service, the proposed project would have no potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – The Sewer Improvements Project footprint is located within the City of Desert Hot Springs and will occur within developed roadway segments and within a small portion of compacted dirt area of compacted dirt within which a small portion of the alignment will be installed. The project footprint has no General Plan Land Use Designation because pipelines and the roadways in which the new pipeline will be installed are considered essential infrastructure. Once in operation the project will not encroach on developed land surrounding the project footprint as the new sewer pipelines will be located underground. The proposed project is considered a benefit to MSWD's service area because it would enable greater municipal wastewater service to residents within MSWD's service area. Therefore, the project would not result in physically dividing an established community, particularly because the entirety of the project will occur within existing road rights-of-way and within a small portion of developed land containing compacted dirt, and once constructed, the roadways and compacted dirt area will continue to function as they do at present. No impacts are anticipated and no mitigation is required.

- b. *No Impact* – Please refer to the discussion under issue X(a) above. The project will occur mostly within existing roadways within an area surrounded by several land use designations, including R-L: Residential Low (Up to 6.0 DU/AC) and V-S: Visitor-Serving. The project will install new sewer pipeline within MSWD's service area in the City of Desert Hot Springs. The project footprint consists of existing road rights-of-way and a small area of compacted dirt that will be returned to their original condition and function as they do at present once the new sewer pipeline has been installed. Thus, the development of the proposed project within the proposed alignment will be compatible with existing land uses and land use plan, and no conflict or impact to land use can be identified. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

a&b. *No Impact* – The proposed pipeline alignment is located within the City of Desert Hot Springs, and the project will be installed either within existing roadways or within a compacted area within which a small portion of the alignment will be installed. The project is located adjacent to the Little San Bernardino Mountains to the north and east, and residences throughout the project and development to the east, south, and west. According to the Mineral Resources map prepared for the City of Desert Hot Springs General Plan (Figure XII-1), no known mines or mineral resources are known to occur on or in the vicinity of the project footprint. As no current mining operations exist within the proposed pipeline alignment or have been identified by the City, implementation of the proposed project will 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 or a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. No impacts are anticipated under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

Background

Noise is generally described as unwanted sound. The proposed project consists of installing 30,000 LF of sewer pipeline within the City of Desert Hot Springs within MSWD’s service area. Once installed within existing roadways, the pipeline will operate underground and the roadways will be repaved to function as they do at present. No above ground facilities are proposed as part of this project. The noise environment varies within the project footprint as some segments within the proposed pipeline replacement traverse through roadways that experience a high volume of traffic, while other segments within the proposed pipeline replacement are located in low traffic volume, residential areas.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called “A-weighting,” written as “dBA.”

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable"

up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

City of Desert Hot Springs Noise Regulations and Standards

The City of Desert Hot Springs noise standards are found in Section 17-040.180 of the Municipal Code which states:

- In residential areas, no exterior noise level shall exceed 65 dBA and no interior noise level shall exceed 45 dBA.

Construction noise is exempt from these standards as long as work is limited to the hours of 7 am to 5 pm Monday through Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitted on Sundays.

Impact Analysis

- a. *Less Than Significant With Mitigation Incorporated* – The proposed project will install sewer pipeline within existing road rights-of-way. Sensitive receptors are located adjacent to the roadways within which the pipeline will be installed. However, once installed, the pipelines will be located underground; no above ground features are proposed, and no noise sources will affect adjacent land uses. The background noise in this area is moderate to low because it is mostly residential in nature, though Hacienda Avenue, which bisects the project, is a major east-west roadway in the City that generates moderate background traffic noise in the vicinity of the project footprint.

Short Term Construction Noise

Short-term construction noise impacts associated with the proposed project will occur over a period of 160 days and may impact nearby residential dwellings. These activities will include noise generated by construction activities, movement of construction materials to and from the site, and grading, paving, trenching, and excavation within the road rights-of-way. The noise of each of these construction activities varies depending on the type of construction equipment and the location within the footprint within which the construction takes place. The earth-trenching sources are the noisiest type of equipment typically ranging from 82 to 85 dB at 50 feet from the source. Temporary construction noise is exempt from the City's noise standards as long as work is limited to the hours of 7 am to 5 pm Monday through Saturday. The proposed project would be constructed in compliance with the City's noise standards, and construction of the project would be less than significant. However, to minimize the noise generated on the site to the extent feasible, the following mitigation measures shall be implemented:

- NOI-1** *All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.*
- NOI-2** *All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.*
- NOI-3** *No construction activities shall occur during the hours of 5 PM through 7 AM, Monday through Saturday; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.*
- NOI-4** *Equipment not in use for five minutes shall be shut off.*
- NOI-5** *Equipment shall be maintained and operated such that loads are secured from rattling or banging.*

- NOI-6** *Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.*
- NOI-7** *MSWD will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by MSWD.*
- NOI-8** *Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, for example north or west of the existing reservoir.*

Long-Term Operational Noise

The proposed project will not cause any measurable permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project, in particular because this project would install pipeline belowground. Operation of the new sewer pipeline will not generate any new sources of noise within the project footprint. Therefore, through the implementation of the mitigation measures identified above, neither operation or construction of the proposed project would violate noise standards outlined in the City's Municipal Code. Impacts under this issue are considered less than significant with mitigation incorporated.

- b. *Less Than Significant With Mitigation Incorporated* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The FTA Assessment states that in contrast to airborne noise, ground-borne vibration is not a common environmental problem. Although the motion of the ground may be noticeable to people outside structures, without the effects associated with the shaking of a structure, the motion does not provoke the same adverse human reaction to people outside. Within structures, the effects of ground-borne vibration include noticeable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. FTA Assessment further states that it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. However, some common sources of vibration are trains, trucks on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment. The Federal Transit Association (FTA) guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential project related vibration impacts. This threshold provides a basis for determining the relative significance of potential project related vibration impacts.

In the short term, it is possible that groundbreaking construction equipment and other equipment required to construct the whole of the project may have some potential to create some vibration to the nearest sensitive receptors at some sites within the project footprint. Background vibration within the project footprint that traverses through the City of Desert Hot Springs would generally be mixed given that the traffic along the roadways in which the pipeline will be installed varies widely from somewhat-heavily traveled to lightly traveled residential roads. Groundborne vibration is normally perceptible to humans at approximately 65 VdB, while 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. Construction activity can result in varying degrees of groundborne vibration; in the short term, construction from installing the pipeline has the potential to create some groundborne vibration to the nearest sensitive receptors at some sites within

the project footprint. However, any short-term impacts to the nearest sensitive receptors would be considered less than significant through implementing the following mitigation measure:

NOI-9 MSWD shall require the construction contractor(s) to implement the following measures:

- **Ensure that the operation of construction equipment that generates high levels of vibration including, but not limited to, large bulldozers, loaded trucks, pile-drivers, vibratory compactors, trenching equipment, and drilling rigs, is minimized to below 72 vibration decibels (VdB), within 45 feet of existing residential structures and 35 feet of institutional structures (e.g., schools) during construction. Use of small rubber-tired bulldozers shall be enforced within these areas during grading operations to reduce vibration effects.**
- **The construction contractor shall provide signs along the roadway identifying a phone number for adjacent property owners to contact with any complaint. During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests shall be conducted at the property line near the nearest occupied residences., If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold. These measures may include, but are not limited to the following: use different construction methods, slow down construction activity, or other mitigating measures to reduce vibration at the property from where the complaint was received.**

With implementation of the above mitigation measure, the project would comply with the City of Desert Hot Springs Municipal Code, and would prevent significant vibration impacts from occurring within the project area. Therefore, impacts from project related vibration would be considered less than significant with implementation of mitigation. No further mitigation is required.

- c. *Less Than Significant Impact* – According to the City of Desert Hot Springs General Plan, aircraft noise impacting the community emanates from commercial and general aviation operations at the Palm Springs International Airport, located approximately 7.4 miles south of the proposed project. The Palm Springs International Airport: Airport Master Plan and Part 150 Noise Compatibility Study indicate that flight tracks and patterns that aircraft are assumed to follow outlined in the Airport Noise Study indicate limited over flights in Desert Hot Springs. Ultimately, the Airport Master Plan concluded that existing and future noise levels associated with Airport operations will have no significant impact on the City of Desert Hot Springs or its sphere of influence (SOI). Given that the proposed H and I Sewer Improvement Project is located within the City of Desert Hot Springs, it is not anticipated that persons working in the project area to excessive noise levels generated by the nearby Airport. No private airstrips are located in close proximity to the proposed project; therefore, impacts under this issue is considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – Implementation of the project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The project is considered a vital infrastructure project because it proposes to install new sewer pipeline to eliminate septic tanks that threaten contamination of groundwater supplies by expanding MSWD’s wastewater collection system. The proposed project will require a temporary work force; however, this is short-term and with a maximum of about 12 employees will not induce substantial population growth. Furthermore, according to the Southern California Association of Governments (SCAG), the total population of Desert Hot Springs in 2018 was 29,742 persons⁶. The City General Plan notes that the City’s population is anticipated to grow to 88,476 residents by 2040. This indicates that the City plans for population growth in the future. As such, given that no additional employees will be required once the pipeline has been replaced and is in operation, the proposed project would have a less than significant potential to induce substantial population growth in an area, either directly or indirectly. No mitigation is required.
- b. *No Impact* – The proposed Sewer Improvement Project will occur within roadways and within a small portion of compacted dirt. No housing is proposed as part of the project and no persons reside within the project footprint. Therefore, implementation of the project as a whole will not displace any existing housing or displace a substantial number of people that would necessitate the construction of replacement housing elsewhere. No impacts will occur as a result of project implementation. No mitigation is required.

⁶ <https://www.scaq.ca.gov/Documents/DesertHotSprings.pdf>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: 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:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *Less Than Significant Impact* – The City of Desert Hot Springs is currently served by the Riverside County Fire Department (RCFD). The RCFD currently has two fire stations: Station #36 and Station #37, which, together, responded to approximately 5,746 calls in FY15.⁷ These calls included medical emergencies, vegetation and structure fires, vehicle accidents, public assistance and false alarms. Station #37 is the fire station located close to the project at about a mile northwest of the proposed project footprint along Pierson Boulevard. The project will not include the use or storage of highly flammable materials. The proposed project would install 30,000 LF of sewer pipeline belowground within existing roadways and within a small area of compacted dirt. Though there may be some need for fire protection services during construction of the pipeline, existing fire protection services within the area are considered adequate protection in such instances. Once construction of each segment has been completed there will be no potential for the operation of the pipeline to require fire protection services as these pipelines will be located belowground. Therefore, any impact to the existing fire protection system is considered random and less than significant. No additional mitigation is required.
- b. *Less Than Significant Impact* – The proposed project site is located within the City of Desert Hot Springs in a residential area adjacent to the Little San Bernardino Mountains. The City of Desert Hot Springs Police Department provides the citizens of the Planning Area with police services and protection. According to the City’s General Plan EIR, Service is primarily provided from the Police Department Office at 65-950 Pierson Blvd, which is about a mile west of the project footprint. Additional personnel are provided at a satellite office at the Police Neighborhood Office at 66140 West Arroyo located in Tedesco Park. Police services are dispatched from the Police Department Office, but the satellite office is centrally located for greater police presence in the neighborhood and efficient response. The project is not anticipated to generate growth within the project area that would create a new demand for police protection because no additional employees will be required once the pipeline is installed and is in operation. The construction of the sewer pipeline will require only a temporary work force. The proposed project will not include the kind of use that would likely attract criminal activity, except for random trespass and theft; however, construction equipment will be stored in such a manner that public will not have access to it, and once in operation, the project will not include any aboveground components. Thus, due to the type of project proposed, no new or expanded police facilities would need to be constructed as a result of the project. Therefore, impacts

⁷ City of Desert Hot Springs General Plan EIR (pg. 4.15-1)

to police protection resources from implementation of the proposed project are considered less than significant; no mitigation measures are required.

- c. *Less Than Significant Impact* – The proposed project is located within the Palm Springs Unified School District. Within the City and SOI, there are five elementary schools, two middle schools, and one high school, as well as the Wenzlaff Education Center, a continuation school. Bella Vista Elementary School, located at 65750 Avenida Jalisco and Painted Hills Middle School, located at 9250 Sonora Drive within the City of Desert Hot Springs are the closest schools to the project site, located less than a mile to the west. As discussed under Chapter XIV, Population and Housing, above, the project would not induce population growth within the City, as it will neither construct housing, nor result in a growth in employment opportunities within the area. Because the project would develop infrastructure through the development of 30,000 LF of sewer pipeline and would not develop any aboveground facilities that are commercial, residential, or industrial in nature, the proposed project is not required to pay any fees to offset impacts to school facilities. Thus, the proposed project will not generate an increase in elementary, middle, or high school population. Therefore, any impacts under this issue are considered less than significant. No mitigation is required.
- d. *No Impact* – Because the project would develop infrastructure through the development of 30,000 LF of sewer pipeline and would not develop any aboveground facilities that are commercial, residential, or industrial in nature, the proposed project is not required to pay any fees to offset impacts to park facilities. As stated in the preceding sections, the proposed project is not anticipated to create a substantial increase in population because it does require additional MSWD staff to operate this new sewer collection system. Implementation of the proposed project will not impact any current or planned park use, as it will be constructed within existing roadways and within an area containing compacted dirt. Thus, implementation of the proposed project would not cause a substantial adverse physical impact to any parks within the City. No impacts are anticipated, and no mitigation is required.
- e. *No Impact* – Other public facilities include library and general municipal services. The library system in the City of Desert Hot Springs is operated by the Riverside County Library System. Since the project will not directly induce substantial population growth, it is not forecast that the use of such facilities will increase as a result of the proposed project. As a result, the implementation of the project will not 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 public services to include other public facilities. Thus, no impacts are anticipated under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

- a. *No Impact* – As previously discussed in Section XIV, Population and Housing and Section XV, Public Services, this project will not contribute to an increase in the population beyond that already allowed or planned for by local and regional planning documents. Therefore, this project will not result in an increase in the demand for parks and other recreational facilities and implementation of the proposed project would not increase the use of any parks within the area, nor would it result in the physical deterioration of other surrounding facilities. No impacts are anticipated. No mitigation is required.
- b. *No Impact* – The proposed project does not include recreational facilities, nor does it require the construction or expansion of recreational facilities. The proposed project will install 30,000 LF of new sewer pipeline within MSWD’s service area in the City of Desert Hot Springs. The Sewer Improvement Project will occur mostly within existing roadways and does not include the construction or expansion of recreational facilities. Thus, there will be no adverse effects on the recreational facilities from implementing this project. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* — The proposed project would install 30,000 LF of sewer pipeline within existing roadways in the City of Desert Hot Springs. The entirety of the project will occur within existing roadway segments outlined in the project description and within a small segment of compacted dirt. The majority of the segments of roadway in which the sewer pipeline will be constructed are local/residential roadways and will not impact major routes of circulation within the area. However, the proposed project will require connection to an existing pipeline within Hacienda Avenue, which is a major east-west roadway within the City. The pipeline installation will require one lane to be closed to complete the installation of the sewer pipeline; this will ensure that each roadway can still operate during construction. However, the project will require implementation of a traffic management plan in order to ensure adequate traffic flow. The installation of new sewer collection pipelines would temporarily reduce the capacity of roadways along the pipeline alignment(s) due to open-trenching within existing roadway rights-of-way (ROWs) and the resulting temporary lane closures on the affected roadways. The impact of the lane closures would vary based on the number of lanes needed to be closed (a function of pipeline diameter and trench width) and the width (number of lanes) of the affected roads. Multi-lane roads (four or more lanes) would be better able to accommodate two-way traffic than two-lane roadways. Two lane roads would likely require active traffic control (flaggers) to allow alternate one-way traffic flow on the available road width, and could possibly require full road closure (with detour routing around the construction work zone). MM **TRAN-1**—addressed below—would be required to reduce potential impacts to traffic and transportation conditions. Implementation of this measure, in conjunction with the temporary character of the construction impacts, is considered sufficient to ensure adequate flow of traffic in a safe manner for pipeline installation.

TRAN-1 *MSWD shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:*

- *Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.*
- *To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.*
- *Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.*

- ***For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.***
- ***Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.***

During construction, an estimated 12 roundtrips from construction workers per day will occur to install the proposed new sewer pipeline. A maximum of 15 roundtrips per day would occur to support construction efforts (i.e., delivery or removal of construction materials), though the average would be about 10 roundtrips per day. Once constructed, no traffic would be generated by this project other than visits to the pipeline alignment by MSWD personnel to inspect and maintain facilities when necessary, resulting in minimal vehicle miles traveled once the pipelines are in operation. Implementation of the project has the potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. However, with implementation of the above mitigation measure requiring a construction traffic management plan, and the following MM **TRAN-2** requiring disturbances within public roadways to be returned to their original or better condition, the proposed project would result in a less than significant impact pertaining to the circulation system, particularly given that impacts to transit, bicycle, and pedestrian facilities will be temporary, and will not permanently disrupt circulation thereof.

TRAN-2 MSWD shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of Riverside or City of Desert Hot Springs standard design requirements.

- b. ***Less Than Significant Impact*** – The proposed project would install 30,000 LF of sewer pipeline within the City of Desert Hot Springs in MSWD’s service area. The City of Desert Hot Springs has not developed a threshold for vehicle miles travelled; however, the proposed project will require minimal vehicle miles traveled to accomplish once constructed. In the short term, construction of the proposed facilities will result in the generation of up to about 27 roundtrips per day on the adjacent roadways by construction personnel and trucks removing any excavated materials and remains of the structures on site. The total number of truck roundtrips per day is estimated to be 15 trips, plus 12 employee roundtrips per day. The vehicle miles traveled in these instances would likely average less than 80 miles round trip. The number of temporary truck trips will be minimized by using 15 cubic yard material haulers instead of smaller 10 cubic yard trucks to haul material onto and off of the site. Additionally, the same trucks that haul material onto the site would also carry material off of the site. Once constructed, no traffic would be generated by this project other than visits to the pipeline alignment by MSWD personnel to inspect and maintain facilities when necessary, resulting in minimal vehicle miles traveled once the pipelines are in operation. As such, development of the Areas H and I Sewer Improvements Project is not anticipated to result in a significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant.
- c. ***Less Than Significant With Mitigation Incorporated*** – The project will temporarily alter existing roadways during construction of the proposed pipeline. However, this alteration will not create any hazards due to design features of incompatible uses. The proposed project will install approximately 30,000 LF of pipeline within existing rights-of-way within the City of Desert Hot Springs. As stated under issue XVII(a) above, with the implementation of mitigation measures **TRAN-1** and **TRAN-2**, which require implementation of a construction traffic management plan and requiring disturbances within public roadways to be returned to their original or better condition, any potential increase in hazards due to design features or incompatible use will be considered less than significant in the short term. In the long term, no impacts to any hazards or incompatible uses in existing roadways are anticipated because once the pipeline is constructed, the roadway and small segment of compacted

dirt will be returned to its original condition, or better. Thus, any impacts are considered less than significant with implementation of mitigation. No additional mitigation is required.

- d. *Less Than Significant With Mitigation Incorporated* – Please refer to the discussions under issue XVII(a) and XVII(c) above. The proposed project will require closure of one lane within the roadway in which each pipeline segment is installed. The Sewer Improvement Project will install sewer pipeline within Areas H and I within the City of Desert Hot Springs. The roadways within which the pipeline installation will occur vary from local residential roadways to collector streets to primary arterial roadways. Primary roadways within the project footprint that would be used during an emergency or evacuation order would be Hacienda Avenue (east-west), Palm Drive (north-south), and Mountain View Road (north-south). The proposed sewer pipeline segments are generally not located within these major roadways, with the exception of connecting pipeline within Hacienda Avenue. At no time during the installation of pipeline will the entirety of this roadway be closed. The project would require one lane to be closed, which would allow for through-traffic so long as a traffic management plan is developed and implemented. Adequate emergency access will be provided along these routes throughout construction. Though closure of one lane will impact traffic, the implementation of mitigation measures **TRAN-1** and **TRAN-2** will ensure that impacts are reduced to a level of less than significant. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial change in the significance of tribal cultural resources, 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 the California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – Only one tribe has requested consultation with the District under AB 52, the Agua Caliente Band of Cahuilla Indians. The District contacted the tribe to initiate the AB-52 process on October 19, 2020. As discussed under Section V Cultural Resources, there may be a potential to unearth cultural resources and possible tribal cultural resources of importance during the earth moving activities, which includes trenching mostly within existing roadways required to install the sewer pipeline. During the 30-day consultation period that concluded on November 17, 2020, the tribe did not submit a response. As such, AB-52 concluded with no tribal input, and therefore, with the implementation of the mitigation measures **CUL-1** through **CUL-3**, the project has a less than significant potential to cause a substantial change in the significance of tribal cultural resources, 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 the California Native American tribe and that is either **a)** Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or **b)** A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

a. Water
No Impact – The proposed project will not develop any housing or human-occupied structures that would require connection to MSWD’s water distribution system. The project proposes to install 30,000 LF of sewer collection pipeline. Therefore, with no connections to MSWD’s water distribution system required, site improvements are not forecast to require or result in the construction of new water facilities or expansion of existing facilities in order to serve the project.

Wastewater
Less Than Significant Impact – The proposed project will construct new wastewater facilities in the form of 30,000 LF of new sewer pipeline within Areas H and I to eliminate septic tanks that threaten contamination of groundwater supplies by expanding MSWD’s wastewater collection system. As demonstrated throughout this Initial Study, the proposed project will not result in any significant impacts from the installation of the new wastewater collection system that will connect to MSWD’s existing wastewater collection system. MSWD has planned for and anticipates the additional wastewater flow generated by Areas H and I, and has available capacity to treat this additional wastewater at their existing/planned wastewater treatment plants. Therefore, while the proposed project would construct new wastewater collection facilities, development of the Areas H and I Sewer Improvements Project would not result in a significant environmental effect related to the relocation or construction of new or expanded wastewater facilities. Impacts are less than significant.

Stormwater
Less Than Significant Impact – As stated under issue XI(c[i-iii]), implementation the proposed project is not forecast to significantly alter the volume of surface/stormwater runoff that will be generated

from the project footprint. The roadways within which the pipeline will be installed will be returned to their original condition upon completion of the placement of each section of sewer pipeline, as will the area of compacted dirt within which a small portion of the alignment will be installed. The roadways will generate essentially the same amount of stormwater as they do at present because no expansion of roadway or change in drainage patterns are anticipated. Given that no new stormwater collection facilities are required to implement the proposed project, and that the existing stormwater collection facilities will remain in place under the proposed project, development of the project will not require or result in the construction of new or expansion of existing stormwater drainage facilities. Any impacts under this issue are considered less than significant. No mitigation is required.

Electric Power

No Impact – Development of the proposed Sewer Improvement Project would not require the installation of electrical services or substantial additional energy beyond that which is currently required to operate MSWD’s wastewater collection facilities. The proposed project would install 30,000 LF of new sewer pipeline that will be connected to MSWD’s existing wastewater collection system. The project may require some additional energy use at existing transmission facilities to accommodate the additional wastewater collected within Areas H and I. However, this increase in energy use would be able to operate within existing electrical capacities. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded electric power facilities. No impacts are anticipated.

Natural Gas

No Impact – Development of the Sewer Improvement Project would not require installation of natural gas. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. No impacts are anticipated.

Telecommunications

No Impact – Development of the Sewer Improvement Project would not installation of wireless internet service or phone serve. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated.

- b. *No Impact* – Please refer to the discussion under issues X(b) and XIX(a) above. The proposed project will install a sewer conveyance pipeline that will connect the GQPP Areas H and I. Construction of the new sewer conveyance pipeline alignment would require approximately 5,000 gallons of potable water each day for a maximum of about 160 days, which equates to the construction of the conveyance pipeline requiring about 800,000 gallons of water (2.4 acre feet) to support the pipeline installation within existing roadways. This amount is considered nominal when compared to the availability of supply from the project proponent, MSWD based on a review of their 2015 Urban Water Management Plan (UWMP). Once the pipeline has been installed, the roadways will return to their original condition with no new impervious area resulting from this effort that would interfere with groundwater recharge in the area. No aboveground features are proposed as part of this project that would require the use of potable water to operate. Thus, implementation of the proposed project will have access to sufficient water supplies available to serve the project from existing entitlements and resources. Any impacts under is issue is considered less than significant. No mitigation is required.
- c. *Less Than Significant Impact* – Please refer to the discussion under X(b) and XIX(a) above. The proposed project will install 30,000 LF of new sewer conveyance pipeline that will connect the GQPP Areas H and I to MSWD’s service area. MSWD has planned for and anticipates the additional wastewater flow generated by Areas H and I, and has available capacity to treat this additional wastewater at their existing/planned wastewater treatment plants. Therefore, while the proposed project would construct new sewer facilities, the connection of Areas H and I to MSWD’s service area would not create a demand of wastewater treatment services that would impact the provider’s ability

to collect and treat wastewater within their existing commitments. Impacts under this issue are considered less than significant. No mitigation is required.

d&e. *Less Than Significant With Mitigation Incorporated* – The project will generate construction waste from the removal of asphalt, concrete, and similar materials. The inert wastes can be disposed of at existing municipal solid waste facilities, which have adequate capacity to accept inert wastes generated by this project, or can be recycled onsite. Any construction and demolition (C & D) waste will be recycled to the maximum extent feasible and any residual materials will be delivered to one of several C & D disposal sites in the area surrounding the project site. Many of these C & D materials can be reused or recycled, thus prolonging our supply of natural resources and potentially saving money in the process.

In accordance with CALGreen code 5.408.4, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing must be reused or recycled. As this is a mandatory requirement, no mitigation is required to ensure compliance by MSWD for this project.

Because of increased construction recycling efforts resulting from CalGreen and other regulations, opportunities for construction recycling are becoming easier to find, such as one in Palm Desert that accepts a wide range of construction and demolition debris materials: asphalt, concrete, drywall, gravel, reusable/ deconstructed material, pallets, sand, soil, and wood. There are additional facilities that accept C&D materials located in the surrounding areas⁸ including facilities in Coachella, Thousand Palms, Indio, Palm Springs, and Cathedral City that accept a wide range of materials including the following: appliances, cardboard, metals, wood, asphalt, concrete, soil, block, rock, brick, carpet and padding, concrete with rebar, drywall, gravel, rock, roof tile, and tile.

The facilities that accept C&D materials, combined with the landfills in the surrounding area, have adequate capacity to serve the proposed project. Solid waste will be disposed of in accordance with existing regulations at an existing licensed landfill. The Lamb Canyon Sanitary Landfill and Badlands Landfill serve the project area. The Lamb Canyon Sanitary Landfill has a maximum permitted daily capacity of 5,500 tons per day, with a permitted capacity of 38,935,653 cubic yards (CY), with 19,242,950 CY of capacity remaining. The Badlands landfill has a maximum permitted daily capacity of 4,800 tons per day, with a permitted capacity of 34,400,000 CY, with 15,748,799 CY of capacity remaining. Both landfills permit thousands of tons of waste per day, which is beyond what the expected amount of waste would be generated by the construction of the proposed sewer pipeline alignments. Furthermore, the proposed project is not anticipated to generate any operational waste as the project will install pipelines belowground. As such, the proposed project would comply with all federal, State, and local statutes related to solid waste disposal.

Any hazardous materials collected within the project footprint during either construction or operation of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. To further reduce potential impacts to solid waste facilities due to the scale of the materials that may require disposal or recycling, the following mitigation measure will be implemented:

UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to MSWD for review and approval prior to the start of demolition/construction activities to accomplish this objective.

⁸ http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf

Therefore, with the above mitigation measure, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION

a-d. *No Impact* – The proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zone. The proposed project is located adjacent to the Little San Bernardino Mountains, as such, the project is located adjacent to a high fire hazard zone within an SRA (Figure IX-2). However, the project will not construct any habitable structures. The proposed project will install 30,000 LF of new pipeline within existing roadways, underground. Pipelines are not susceptible to wildfire hazards and the development of the proposed pipeline will not increase or exacerbate the risk of wildland fires to nearby residences and structures. The proposed project area is within a residential, developed area of the desert and once installed, the pipeline will be located belowground and will not be susceptible to wildfire risk. Therefore, as the proposed project is not located within or adjacent to a very high fire hazard severity zone, no impacts under these wildfire issues are anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis of the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized following this section.

- a. *Less Than Significant With Mitigation Incorporated* – The project has no potential to cause a significant impact any biological or cultural resources. No sensitive species were observed within the project area during the reconnaissance-level field survey and due to the environmental conditions on site, none are expected to occur. The project area is completely disturbed, consisting of paved streets and previously graded, compact bare ground and due to the environmental conditions on site and the adjacent disturbances, the project area is likely not suitable to support any of the special status wildlife species that have been documented in the project vicinity. As such, the project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce 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, or reduce the number or restrict the range of a rare or endangered plant or animal; however, mitigation is required to minimize impacts to nesting birds. No historical resources within or adjacent to the project area have any potential to be disturbed as they are not within the proposed area in which the pipelines will be constructed and developed, and thus, the project as it is currently proposed will not cause a substantial adverse change to any known historical resources. However, archaeological deposits may be located in the soils underlying the roadways within which the proposed pipeline will be installed. Mitigation is required to minimize any potential impacts thereof. Furthermore, because it is not known what could be unearthed upon any excavation activities, contingency mitigation measures are provided to ensure that, in the unlikely event that any resources are found outside of the sensitive areas, they are protected from any potential impacts. Please see biological and cultural sections of this Initial Study.

- b. *Less Than Significant With Mitigation Incorporated* – Based on the analysis in this Initial Study, the proposed Areas H and I Sewer Improvements Project has the potential to cause impacts that are individually or cumulatively considerable. There are no other projects in the vicinity to which this project would make a cumulatively considerable impact, furthermore the provision of wastewater collection is generally viewed as a benefit to the community. The issues of Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Utilities and Service Systems require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, less than significant impacts.

- c. *Less Than Significant With Mitigation Incorporated* – The proposed project includes activities that have a potential to cause direct substantial adverse effects on humans. The issues of Air Quality, Geology and Soils, Hazards and Hazardous Materials, and Noise require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant.

Conclusion

This document evaluated all CEQA issues contained in the Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agricultural and Forestry Resources, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, Recreation, and Wildfire. The issues of Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Utilities and Service Systems require the implementation of mitigation measures to reduce impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact and the MSWD will implement these measures.

Based on the findings in this Initial Study, the MSWD proposes to adopt a Mitigated Negative Declaration (MND) for the Mission Springs Water District Areas H and I Sewer Improvements Project. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) will be issued for this project by the MSWD. The Initial Study and NOI will be circulated for 30 days of public comment. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed by MSWD for possible adoption at a future Board meeting, the date for which has yet to be determined. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting dates in accordance with the requirements in Section 21092.5 of CEQA (statute).

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised 2019
Authority: Public Resources Code sections 21083 and 21083.09
Reference: Public Resources Code sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3/ 21084.2 and 21084.3

SUMMARY OF MITIGATION MEASURES

Air Quality

- AIR-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:
- Apply soil stabilizers to inactive areas.
 - Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
 - Stabilize previously disturbed areas if subsequent construction is delayed.
 - Apply water to disturbed surfaces and haul roads 3 times/day.
 - Replace ground cover in disturbed areas quickly.
 - Reduce speeds on unpaved roads to less than 15 mph.
 - Trenches shall be left exposed for as short a time as possible.
 - Identify proper compaction for backfilled soils in construction specifications.

This measure shall be implemented during construction, and shall be included in the construction contract as a contract specification.

- AIR-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:
- Utilize off-road construction equipment that has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.
 - Contactors shall utilize Tier 4 or better heavy equipment.
 - Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

Biological Resources

- BIO-1 Nesting bird surveys shall be conducted by a qualified avian biologist no more than three (3) days prior to vegetation clearing or ground disturbance activities. Preconstruction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the preconstruction nesting bird surveys, a Nesting Bird Plan (NBP) shall be prepared and implemented by the qualified avian biologist. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, ongoing monitoring, establishment of avoidance and minimization measures, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, individual/pair's behavior, nesting stage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity. To avoid impacts to nesting birds, any grubbing or vegetation removal should occur outside peak breeding season (typically February 1 through September 1).

Cultural Resources

- CUL-1 In order to identify such archaeological deposits within the potentially sensitive areas of the APE—along Miracle Hill Road and the portion delineated by Hidalgo Street, Loma Vista Road, and Hermano Way—in a timely manner and, if necessary, to protect such resources from adverse effect from the undertaking, any ground disturbance that will occur in the archaeologically sensitive area and reach beyond the roadbed fill—generally speaking the uppermost five feet of surface and near-surface soils—shall be conducted under the direction and close observation of a qualified archaeologist. If any potentially significant cultural remains are encountered, the mechanical excavations shall be halted or diverted while an archaeological team recovers the materials through procedures consistent to a standard archaeological testing program.

- CUL-2 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.
- CUL-3 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Geology & Soils

- GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. Where covering is not possible, measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the Project site for future cleanup such that erosion does not occur.
- GEO-2 Excavated areas shall be backfilled and compacted such that erosion does not occur. Paved areas disturbed by this project shall be repaved in such a manner that roadways and other disturbed areas are returned to the pre-project conditions or better.
- GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the pipelines are being installed.
- GEO-4 The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.
- GEO-5 Based upon the Subsurface Soils Investigation (Appendix 4a of this document), all of the recommendations identified in Appendix 4a (listed on pages 3-8) shall be implemented by MSWD. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site.
- GEO-6 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the MSWD's onsite inspector. The paleontological professional shall assess the find, determine its significance, and determine appropriate mitigation measures within the guidelines of the California Environmental Quality Act that shall be implemented to minimize any impacts to a paleontological resource.

Hazards & Hazardous Materials

- HAZ-1 All accidental spills or discharge of hazardous material during construction activities shall be reported to the Certified Unified Program Agency and shall be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately a licensed disposal or treatment facility. This measure shall be incorporated into the SWPPP prepared for the proposed project. Prior to accepting the site as remediated, the area contaminated shall be tested to verify that any residual concentrations meet the standard for future residential or public use of the site.

Hydrology & Water Quality

- HYD-1 MSWD shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:
- The use of silt fences;
 - The use of temporary stormwater desilting or retention basins;
 - The use of water bars to reduce the velocity of stormwater runoff;
 - The use of wheel washers on construction equipment leaving the site;
 - The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;
 - The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and
 - Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.

Noise

- NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with operating and maintained mufflers.
- NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.
- NOI-3 No construction activities shall occur during the hours of 5 PM through 7 AM, Monday through Saturday; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.
- NOI-4 Equipment not in use for five minutes shall be shut off.
- NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.
- NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.
- NOI-7 MSWD will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by MSWD.
- NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, for example north or west of the existing reservoir.
- NOI-9 MSWD shall require the construction contractor(s) to implement the following measures:
- Ensure that the operation of construction equipment that generates high levels of vibration including, but not limited to, large bulldozers, loaded trucks, pile-drivers, vibratory compactors, trenching equipment, and drilling rigs, is minimized to below 72 vibration decibels (VdB), within 45 feet of existing residential structures and 35 feet of institutional

structures (e.g., schools) during construction. Use of small rubber-tired bulldozers shall be enforced within these areas during grading operations to reduce vibration effects.

- The construction contractor shall provide signs along the roadway identifying a phone number for adjacent property owners to contact with any complaint. During future construction activities with heavy equipment within 300 feet of occupied residences, vibration field tests shall be conducted at the property line near the nearest occupied residences. If vibrations exceed 72 VdB, the construction activities shall be revised to reduce vibration below this threshold. These measures may include, but are not limited to the following: use different construction methods, slow down construction activity, or other mitigating measures to reduce vibration at the property from where the complaint was received.

Transportation

- TRAN-1 MSWD shall require that contractors prepare a construction traffic control plan. Elements of the plan should include, but are not necessarily limited to, the following:
- Develop circulation and detour plans, if necessary, to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.
 - To the extent feasible, and as needed to avoid adverse impacts on traffic flow, schedule truck trips outside of peak morning and evening commute hours.
 - Install traffic control devices as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones where needed to maintain safe driving conditions. Use flaggers and/or signage to safely direct traffic through construction work zones.
 - For roadways requiring lane closures that would result in a single open lane, maintain alternate one-way traffic flow and utilize flagger-controls.
 - Coordinate with facility owners or administrators of sensitive land uses such as police and fire stations, hospitals, and schools. Provide advance notification to the facility owner or operator of the timing, location, and duration of construction activities.
- TRAN-2 MSWD shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of Riverside or City of Desert Hot Springs standard design requirements.

Utilities & Service Systems

- UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to MSWD for review and approval prior to the start of demolition/construction activities to accomplish this objective.

REFERENCES

CRM TECH, “*Historical/Archaeological Resources Survey Report: Mission Springs Water District Areas H and I Sewer Improvement Project, City of Desert Hot Springs, Riverside County, California*” dated April 5, 2021

City of Desert Hot Springs General Plan dated May 2020

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Giroux & Associates, “*Air Quality and GHG Impact Analyses, Mission Springs Water District, Areas H and I Sewer Improvement Project, Desert Hot Springs, California*” dated January 18, 2021

Jacobs Engineering Group, Inc., “*Mission Springs Water District Areas H and I Sewer Improvements Project Biological Resources Assessment, Jurisdictional Delineation Report and Land Use Consistency Analysis*” dated March 2021

LOR Geotechnical Group, Inc., “*Subsurface Soils Investigation Areas H and I Sewer Improvement Project, Desert Hot Springs, California*” dated June 19, 2020

Websites:

<https://ww3.arb.ca.gov/regact/2021/sad20/appc.pdf>

<https://www.sce.com/about-us/reliability/meeting-demand>

<http://www.rcaluc.org/Portals/13/PDFGeneral/plan/newplan/18->

[%20Vol.%201%20Palm%20Springs%20International.pdf](#)

<https://www.cvwd.org/357/Sustainable-Groundwater-Management-Act>

<https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>

<https://www.scag.ca.gov/Documents/DesertHotSprings.pdf>

City of Desert Hot Springs General Plan EIR

City of Desert Hot Springs General Plan

http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf

FIGURES

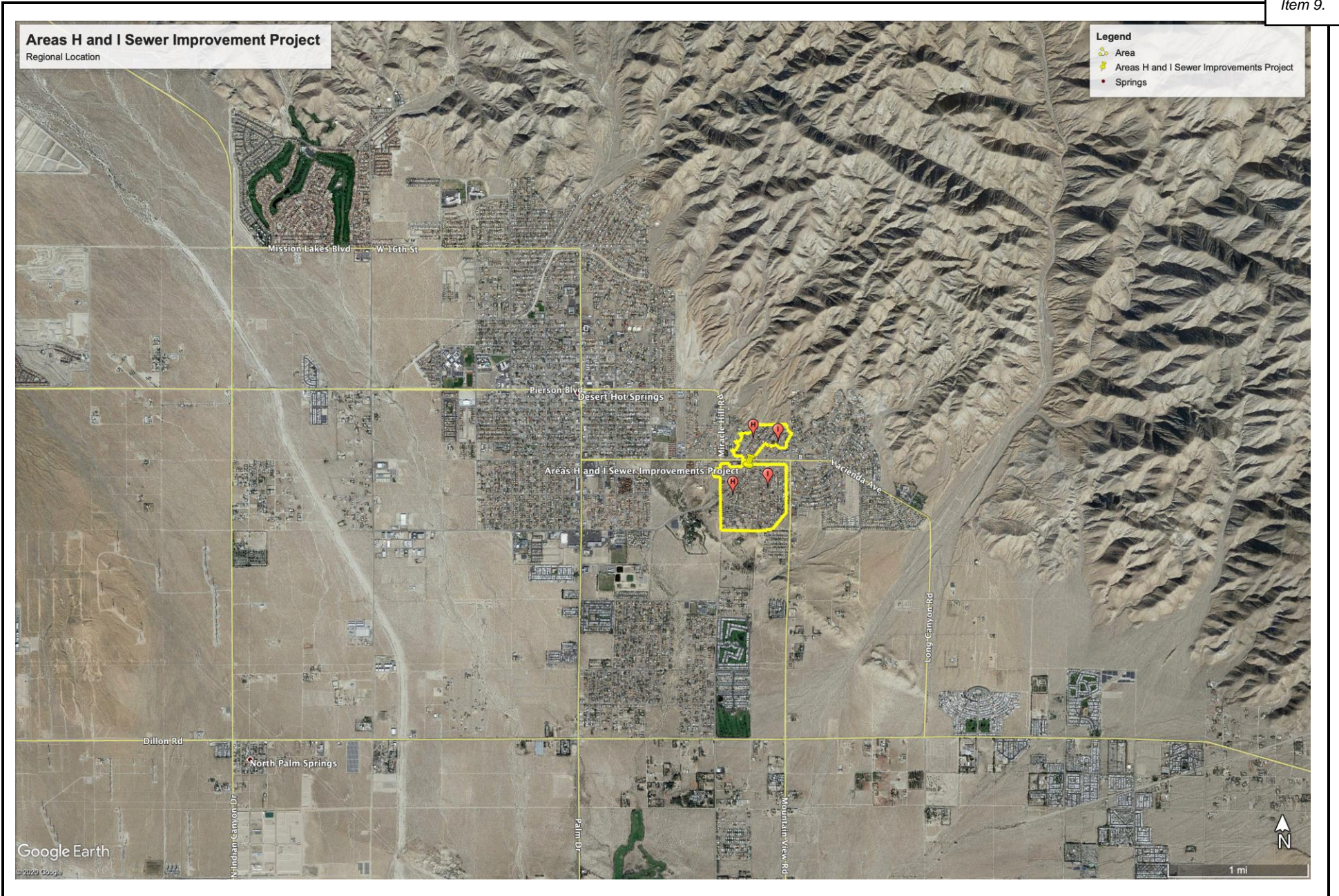
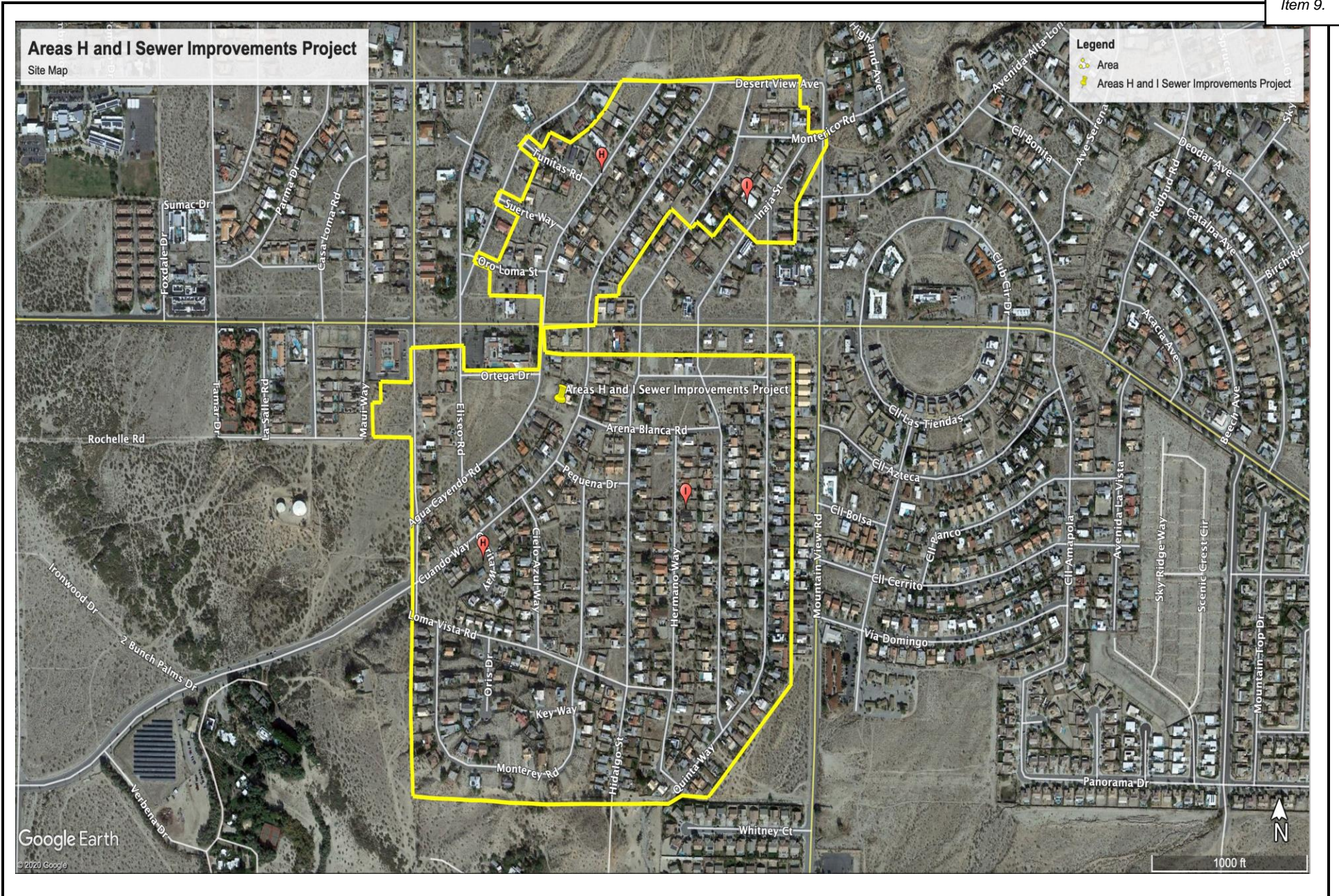
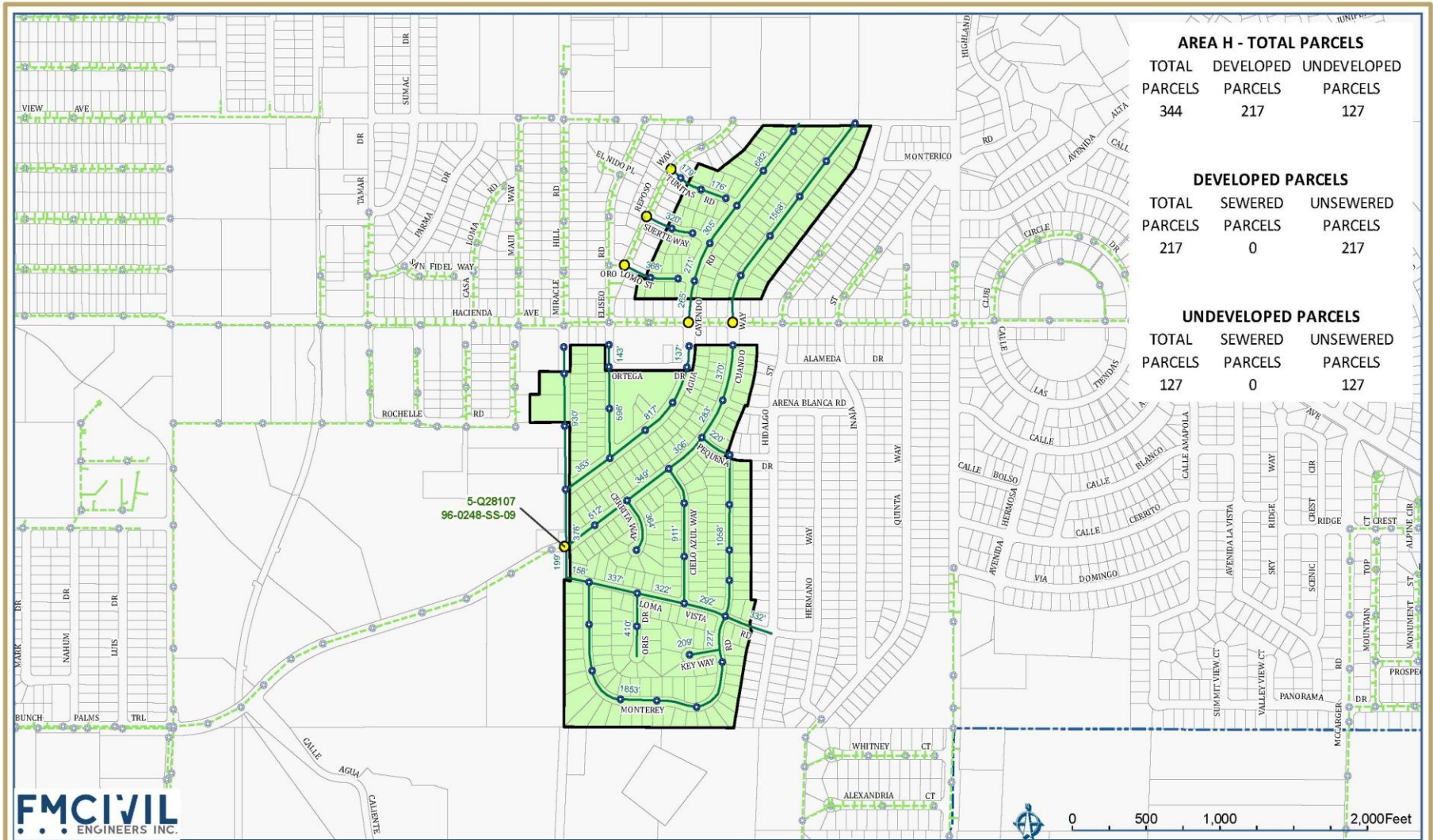


FIGURE 1





AREA H - TOTAL PARCELS

TOTAL PARCELS	DEVELOPED PARCELS	UNDEVELOPED PARCELS
344	217	127

DEVELOPED PARCELS

TOTAL PARCELS	SEWERED PARCELS	UNSEWERED PARCELS
217	0	217

UNDEVELOPED PARCELS

TOTAL PARCELS	SEWERED PARCELS	UNSEWERED PARCELS
127	0	127

FMCIVIL
ENGINEERS INC.

AREA H SEWER IMPROVEMENTS
MISSION SPRINGS WATER DISTRICT


 PROPOSED MAINHOLE
  PROPOSED SEWER
  EXISTING SEWER
  CONNECTION POINT
  AREA BOUNDARY
  PARCEL LINE
  CITY BOUNDARY





AREA I - TOTAL PARCELS		
TOTAL PARCELS	DEVELOPED PARCELS	UNDEVELOPED PARCELS
334	251	83

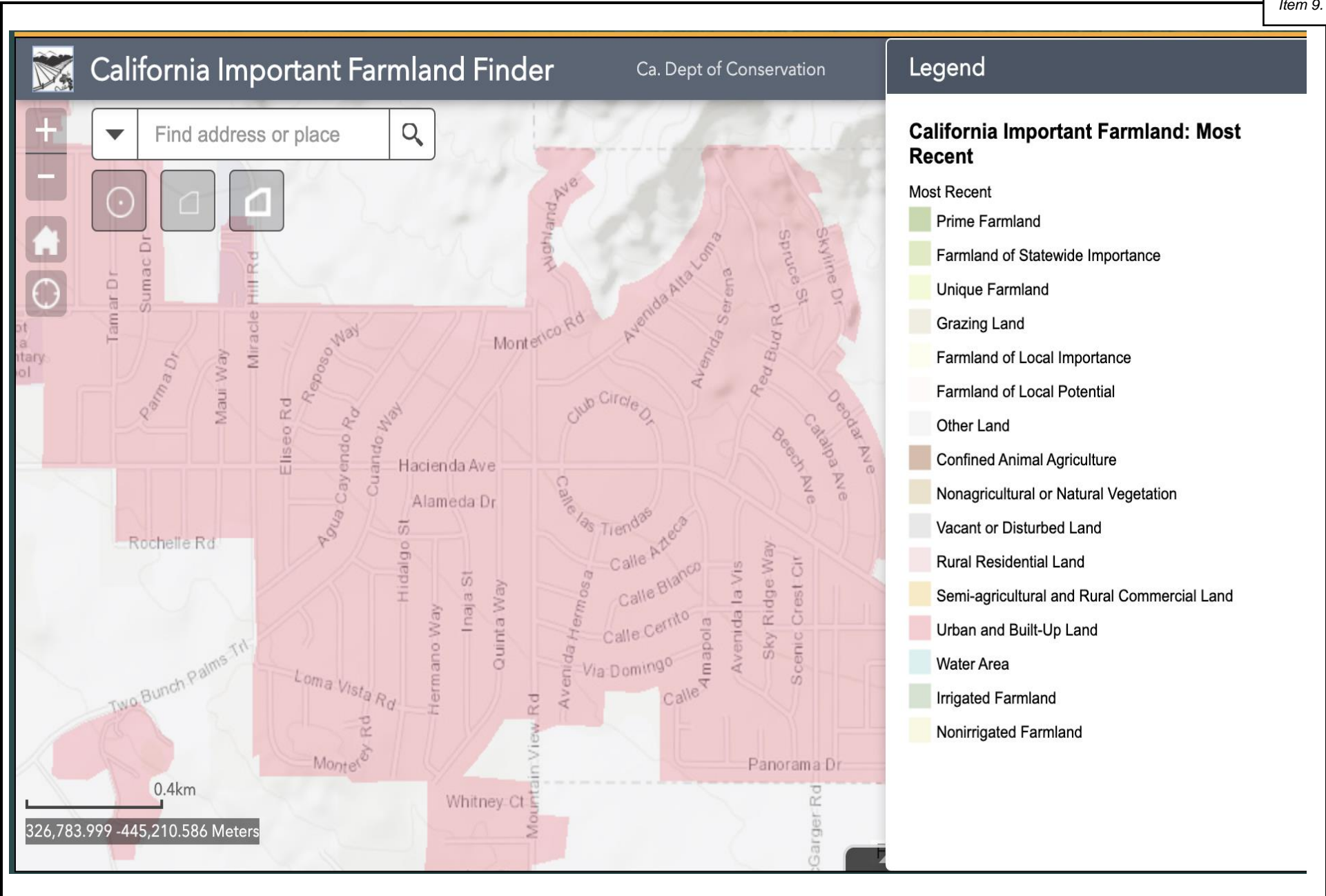
DEVELOPED PARCELS		
TOTAL PARCELS	SEWERED PARCELS	UNSEWERED PARCELS
251	0	251

UNDEVELOPED PARCELS		
TOTAL PARCELS	SEWERED PARCELS	UNSEWERED PARCELS
83	0	83

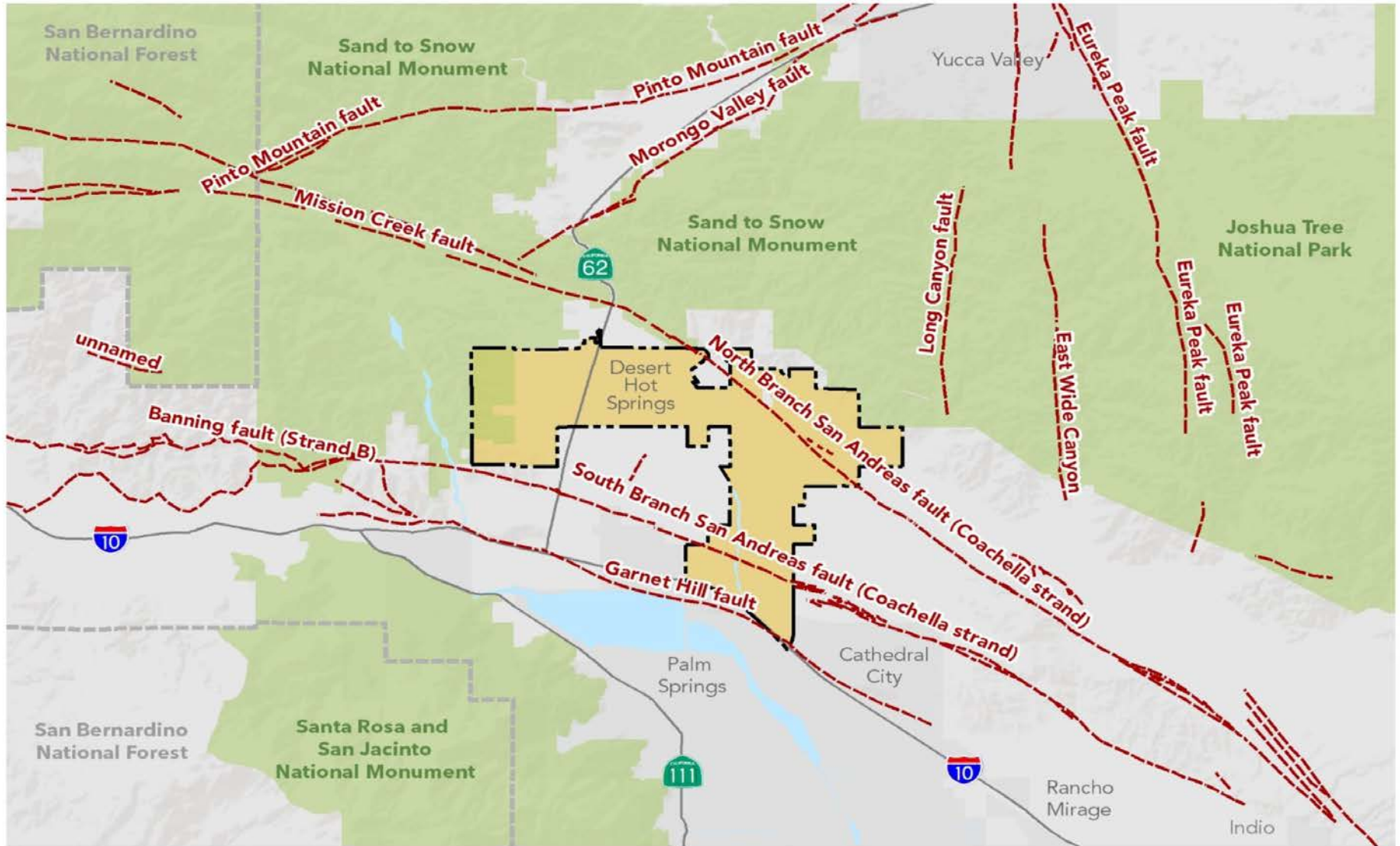
FMCIVIL
ENGINEERS INC.

AREA I SEWER IMPROVEMENTS
MISSION SPRINGS WATER DISTRICT





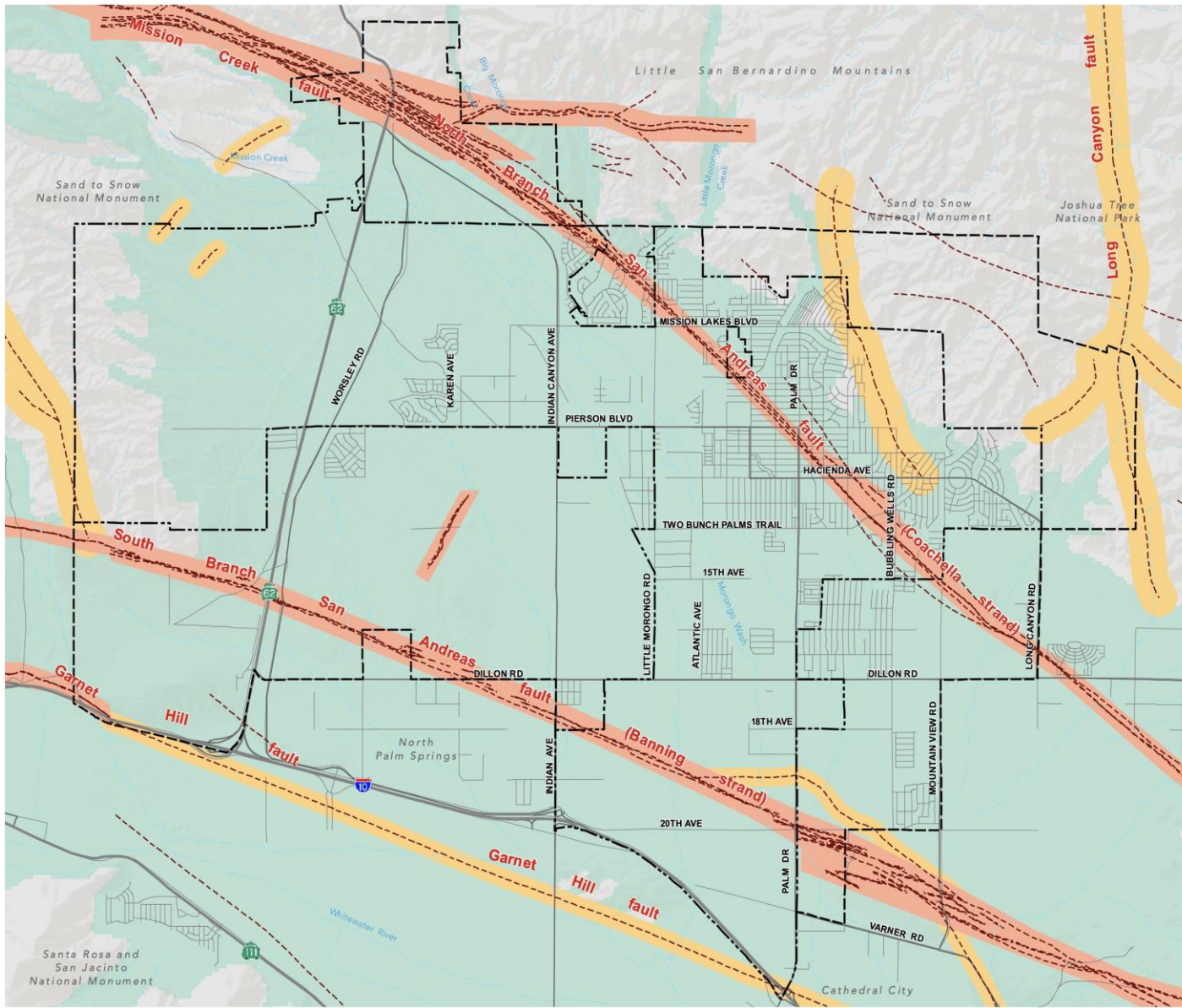
SN-2: Regional Faults



SOURCE: City of Desert Hot Springs General Plan

FIGURE VII-1

DESERT HOT SPRINGS GENERAL PLAN
**Figure SN-3:
Seismic Hazards**



- Seismic Hazards**
- Faults
 - Liquefaction
- Fault Zones**
- Riverside County Designated Fault Zone
 - Alquist Priolo Fault Zone

- Base Map Features**
- City Boundary
 - Sphere of Influence
 - Water Courses

Source: City of Desert Hot Springs and Riverside County.
Date: January 2019.



SOURCE: City of Desert Hot Springs General Plan

FIGURE VII-2

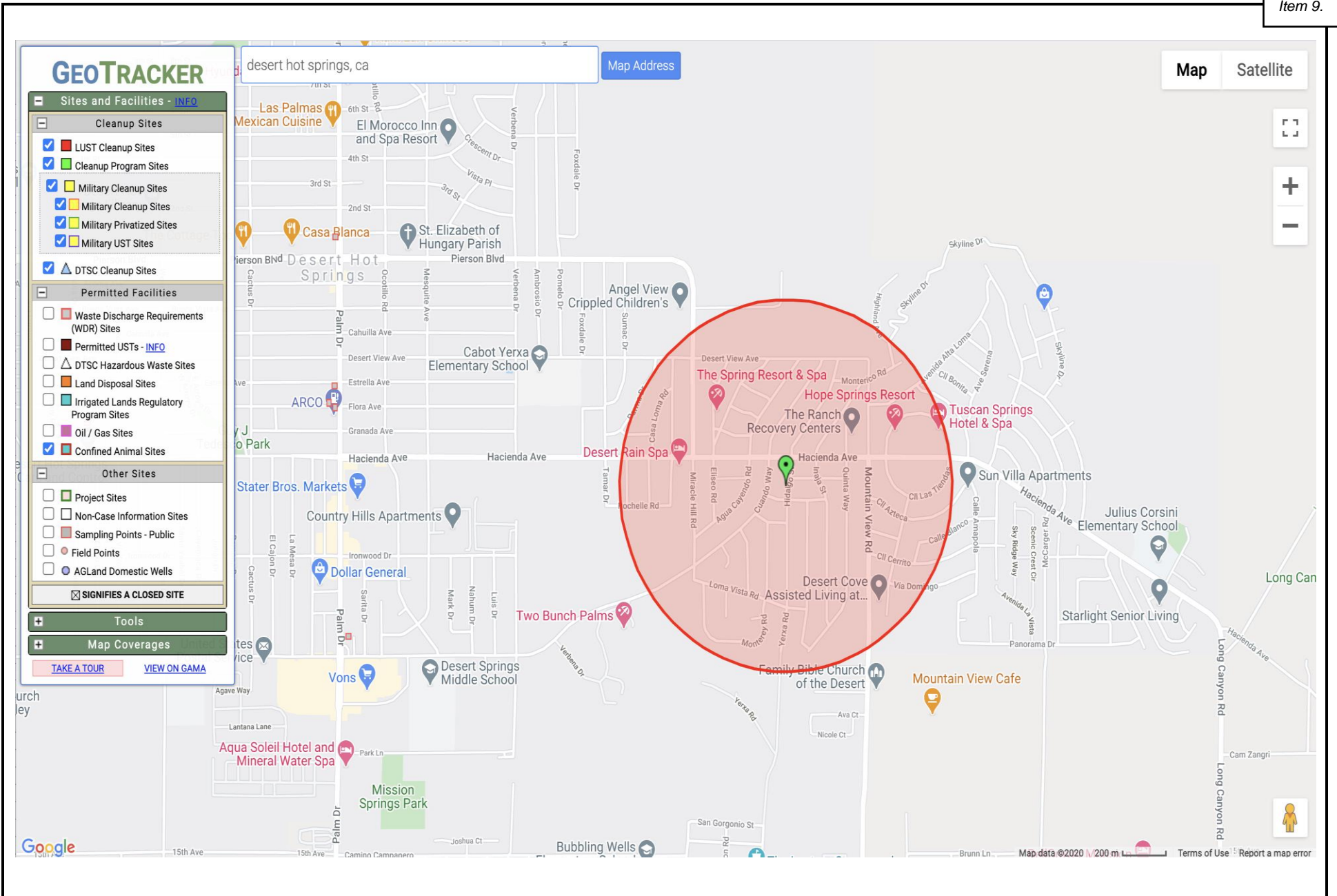


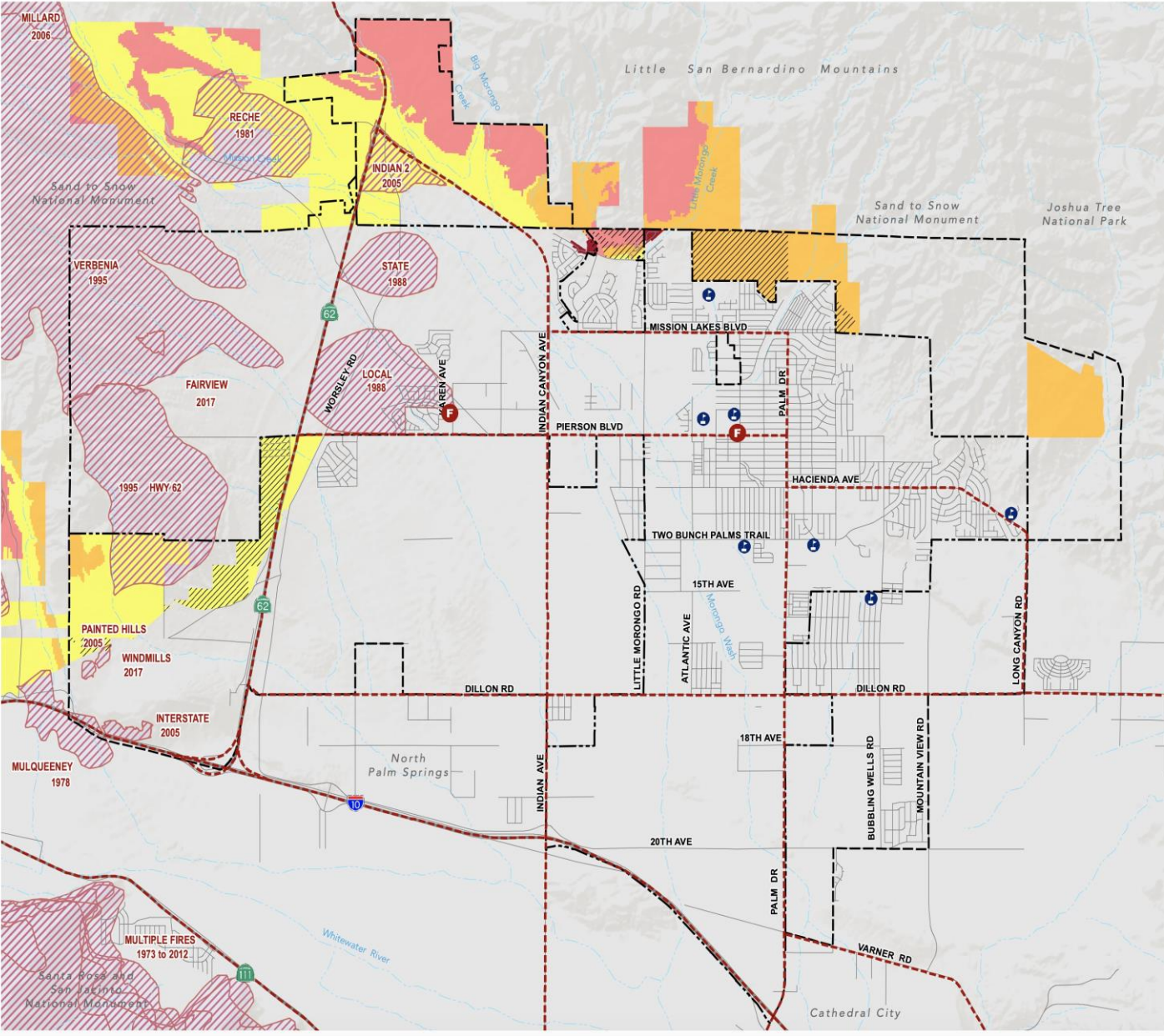
FIGURE IX-1

Figure SN-5: Wildfire Hazards

- Fire Hazard Severity Zones (State Responsibility Areas)**
 - Very High
 - High
 - Moderate
 - Fire Hazard Severity Zones (Local Responsibility Areas)**
 - Very High
 - Historic Fire Perimeters (1973 to 2017)
 - Evacuation Routes
 - Riverside County Fire Stations
 - Existing and Planned Residential Development in Local and State Responsibility Areas
- Base Map Features**
- City Boundary
 - Sphere of Influence
 - Water Courses
 - Public Schools

Source: CAL FIRE's Fire and Resource Assessment Program, 2009 and Riverside County GIS (accessed August 2019.)

Date: August 2019

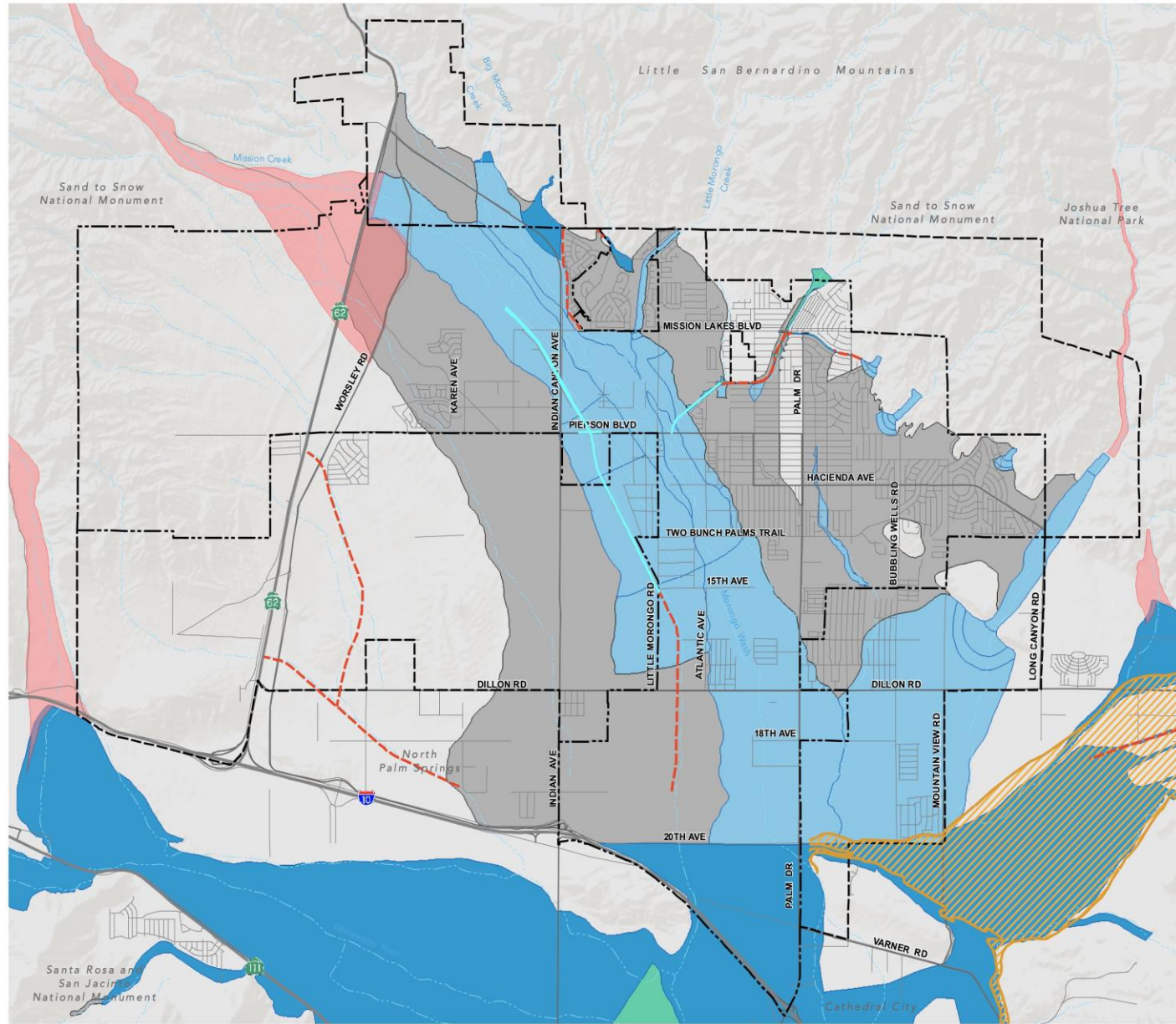


SOURCE: City of Desert Hot Springs General Plan

FIGURE IX-2

DESERT HOT SPRINGS GENERAL PLAN

Figure SN-4: Flood Hazards



FEMA Flood Zones

Special Flood Hazard Areas Subject To Inundation by the One Percent Annual Chance Flood

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard include Zones A, E, and AO. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- Zone A No Base Flood Elevations determined.
- Zone AE Base Flood Elevations determined.
- Zone AO Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

Other Flood Areas

- Zone X Areas of 0.2% annual chance flood (500-year flood); and areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

Awareness Floodplain Boundary (approximate)

Dam Inundation

Wide Canyon Dam Inundation Area

Flood Control Channels and Facilities

Riverside County Flood Control Facilities

Base Map Features

- City Boundary
- Sphere of Influence
- Water Courses

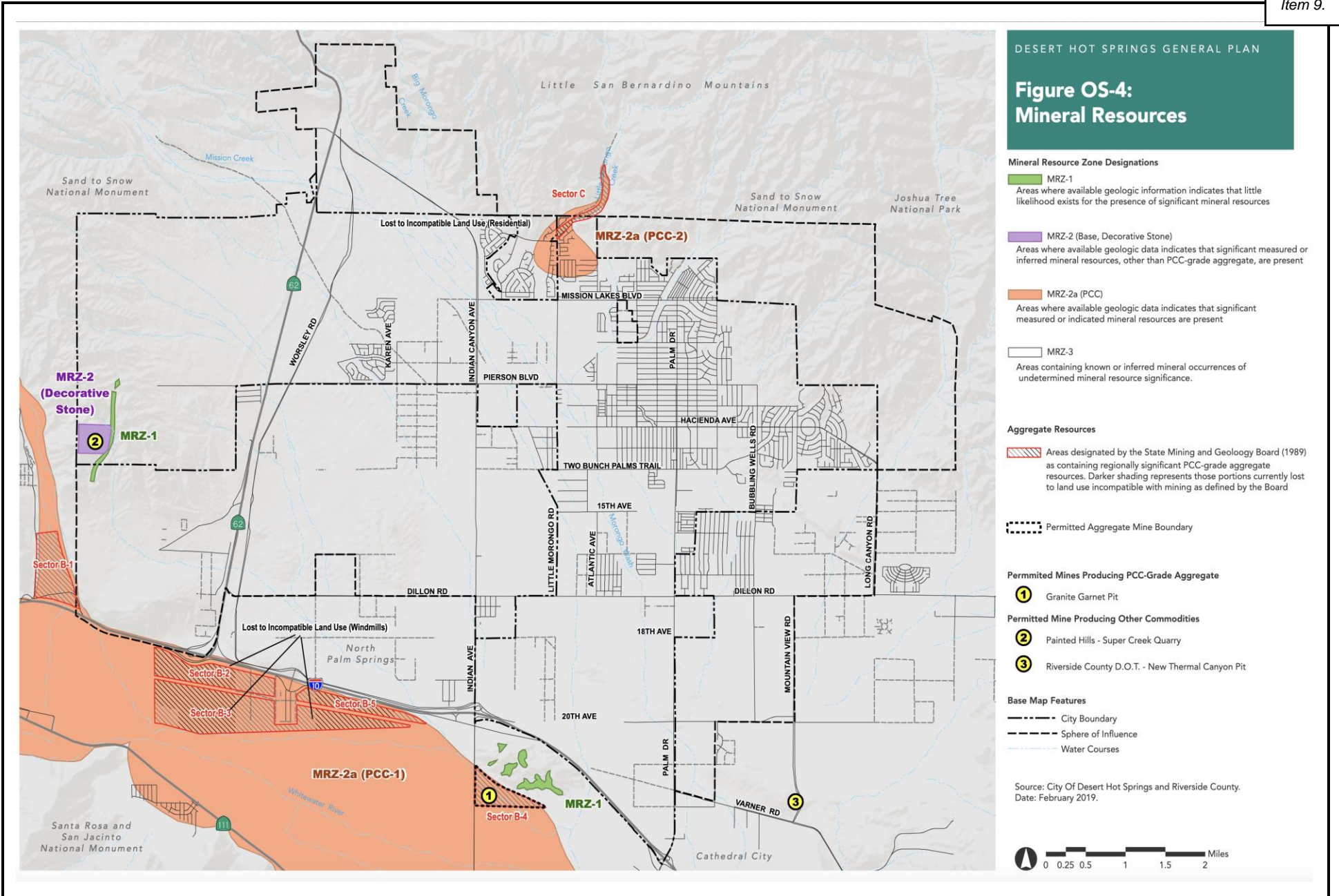
January 2019.

Source: Federal Emergency Management Agency (FEMA), August 2018.
 National Flood Hazards Layer (NFHL). FEMA Map Service Center: Web Page, <<http://msc.fema.gov>>
 California Department of Water Resources, 2018. Awareness Floodplain Mapping Boundaries - Riverside County: Web Page, <http://www.water.ca.gov/floodmgmt/trafmo/fmb/fes/awareness_floodplain_maps>
 California Department of Water Resources, Office of Emergency Services, 1958. Dam Inundation Areas, 2009.



SOURCE: City of Desert Hot Springs General Plan

FIGURE X-1



SOURCE: City of Desert Hot Springs General Plan

FIGURE XII-1

APPENDIX 1

CEQA/NEPA AIR QUALITY and GHG IMPACT ANALYSES

MS-277

**MISSION SPRINGS WATER DISTRICT
AREAS H AND I SEWER IMPROVEMENTS PROJECT**

DESERT HOT SPRINGS, CALIFORNIA

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January 18, 2021

Project No.: P20-020 AQ

ATMOSPHERIC SETTING

The proposed project site is in the Coachella Valley Planning Area (CVPA) of the Salton Sea Air Basin (SSAB). The SSAB was part of the Southeast Desert Air Basin (SEDAB) until May, 1996 when the SSAB was created. The project site is in the hottest and driest parts of California. The climate is characterized by hot, dry summers and relatively mild winters. Rainfall is scant in all seasons, so differences between the seasons are characterized principally by differences in temperature. Average annual precipitation in the air basin ranges from 2 to 6 inches per year.

Seasonal temperature differences in the basin are large, confirming the absence of marine influences due to the blocking action of the mountains to the west. Average monthly maximum temperatures in the project vicinity range from 108°F in July to 57°F in January. The average monthly minima range from about 40°F in January to about 80°F in July.

During much of the year, California is covered by a moderately intense high-pressure system. In winter, the Pacific High retreats to the south, so that frontal systems from the North Pacific can move onto the California coast. On average, 20 to 30 frontal systems pass through California each winter. The first front usually arrives around the middle of October, and the average period of frontal activity is five to six months. Most of these systems are relatively weak by the time they reach the SSAB, however, and they become more diffuse as they move southeastward.

Spring is a transition season between the winter period of frontal activity and the generally dry summer; some precipitation continues during the early part of the season.

During the summer, the Pacific High is well developed to the west of California, and a thermal trough overlies the SSAB. The intensity and orientation of the trough varies from day to day. Although the rugged mountainous country prevents a normal circulation, the influence of this trough does permit some inter-basin exchange with coastal locations through the passes. Summer is also the season with occasional moisture influx from the Gulfs of Mexico or California which causes isolated thundershowers and flash flooding (the summer "monsoon").

Fall is the transition period from the hot summer back to the season of frontal activity, but it is still very dry, and temperatures are still mild.

Desert regions tend to be windy, since little friction is generated between the moving air and the low, sparse vegetation cover. In addition, the rapid daytime heating of the lower air over the desert leads to strong convection activity. This exchange of lower and upper air accelerates surface winds during the warm part of the day when convection is at a maximum. During winter, however, the rapid cooling in the surface layers at night retards this exchange of momentum, and the result is often a high frequency of nearly calm winds, especially at night.

During all seasons, the prevailing wind direction is predominantly from the west to east. Banning Pass is an area where air is squeezed through a narrow opening with accelerated airflow that supports wind farms. The strong winds also occasionally lead to blowing sand that sandblasts painted surfaces and makes driving unsafe. As the west to east winds fan out into the Coachella

Valley, they slow down quickly. By the time the onshore flow reaches the project site, it has again returned to its normal speed.

The mixing depth, i.e., the height available for dispersion of airborne pollutants emitted near the surface, is limited by the occurrence of temperature inversions. A temperature inversion is a layer of air in which the temperature increases with height. The temperature inversion conditions of the SSAB are quite different from those of the coastal regions of California. In coastal environments, warm, subsiding air aloft creates a lid above the shallow marine layer at the surface. The base of this subsidence inversion is perhaps 1,500 feet above the surface in coastal portions of the Los Angeles Basin. When a subsidence inversion exists over the desert, the height of the inversion base lies some 6,000 to 8,000 feet above the surface.

Nighttime surface inversions in the desert are common, especially during the cooler months. Mixing heights are predominantly 1,000 feet or less. These inversions are caused by nighttime radiational cooling of the land surface in contact with overlying air that cools more slowly. They tend to be destroyed early in the day in summer, due to intense solar radiation and heating of the land surface. In winter, however, these radiation inversions tend to persist until mid-morning, limiting mixing in the lower atmosphere to heights of 200 to 2,000 feet above the surface. Nuisance air quality problems in the Coachella Valley, such as dust near mining operations or odors near feedlots or wastewater plants, occur mainly late at night or early in the morning when such radiation inversions are strongest.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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California Air Resources Board (5/4/16)

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	<ul style="list-style-type: none"> • Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter. 	<ul style="list-style-type: none"> • Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> • Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions. 	<ul style="list-style-type: none"> • Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O ₃)	<ul style="list-style-type: none"> • Atmospheric reaction of organic gases with nitrogen oxides in sunlight. 	<ul style="list-style-type: none"> • Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	<ul style="list-style-type: none"> • Contaminated soil. 	<ul style="list-style-type: none"> • Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	<ul style="list-style-type: none"> • Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions. 	<ul style="list-style-type: none"> • Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> • Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NO_x, sulfur oxides, and organics. 	<ul style="list-style-type: none"> • Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> • Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes. 	<ul style="list-style-type: none"> • Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide (NO₂) that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO₂ standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 µg/m³ to 12 µg/m³ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm which matches the current California standard. It will require three years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

In 2010 a new federal one-hour primary standard for nitrogen dioxide (NO₂) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO₂) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO₂ is typically not a problem pollutant.

BASELINE AIR QUALITY

In the CVPA portion of the SSAB, air quality planning, enforcement and monitoring responsibilities are carried out by the South Coast Air Quality Management District (SCAQMD). Existing and probable future levels of air quality around the project area can be best inferred from ambient air quality measurements conducted by the SCAQMD at the Indio and Palm Springs air quality monitoring stations. In Indio, ozone and 10 microns or less in diameter, (respirable) particulates called PM-10, are monitored. These two pollutants are the main air pollution problems in the CVPA portion of the SSAB. Vehicular pollution levels such as carbon monoxide (CO) and nitrogen dioxide (NO₂) are monitored at Palm Springs. Levels of CO and NO₂ at the project site are likely lower than those monitored in Palm Springs. However, because CO and NO₂ levels in Palm Springs are well within acceptable limits, their use to characterize the project site introduces no complications. The last four years of published data from Indio and Palm Springs stations are summarized in Table 3. The following conclusions can be drawn from this data:

Photochemical smog (ozone) levels periodically exceed standards. The 1-hour state standard was violated less than one percent of all days in the last four years near Indio. The 8-hour state ozone standard has been exceeded an average of 11 percent of all days per year during the same time. The Federal eight-hour ozone standard is violated on around eight percent of all days per year. Ozone levels are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

Carbon monoxide (CO) measurements near the project site have declined throughout the last decade, and 8-hour CO levels were at their lowest in 2017. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum CO levels at the closest air monitoring station are less than 25 percent of their most stringent standards because of continued vehicular improvements.

PM-10 levels as measured at Indio, have exceeded the state 24-hour standard on 12 percent of all measurement days in the last four years, but the national 24-hour particulate standard has not been exceeded during the same period. The state standard is considerably more restrictive.

A fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There have no violations of the 24-hour federal PM-2.5 standard in recent years. With dustier conditions along the I-10 Corridor, there may be occasional violations of PM-2.5 standards at the project site.

Table 3
Air Quality Monitoring Summary
(Days Standards Were Exceeded and Maximum Observed Concentrations 2016-2019)

Pollutant/Standard	2016	2017	2018	2019
Ozone ^a				
1-Hour > 0.09 ppm (S)	2	8	4	4
8-Hour > 0.07 ppm (S)	27	44	49	43
8- Hour > 0.075 ppm (F)	12	27	28	43
Max. 1-Hour Conc. (ppm)	0.099	0.107	0.106	0.103
Max. 8-Hour Conc. (ppm)	0.089	0.093	0.091	0.087
Carbon Monoxide ^b				
1-hour > 20. ppm (S)	0	0	0	0
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.5	0.5	1.1	0.7
Nitrogen Dioxide ^b				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max 1-hour Conc. (ppm)	0.04	0.04	0.04	0.04
Respirable Particulates (PM-10) ^a				
24-hour > 50 µg/m ³ (S)	56/313	43/363	43/353	27/361
24-hour > 150 µg/m ³ (F)	0/313	0/363	0/363	0/361
Max. 24-Hr. Conc. (µg/m ³)	137.	128.	146.	41.
Ultra-Fine Particulates (PM-2.5) ^a				
24-Hour > 35 µg/m ³ (F)	0/115	0/110	0/122	0/118
Max. 24-Hr. Conc. (µg/m ³)	25.8	18.8	28.7	15.0

(S) = state standard, (F) = federal standard

^aData from Indio monitoring station.

^bData from Palm Springs air monitoring station.

Source: SCAQMD Air Monitoring Summaries.

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NO_x) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NO_x and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

Table 4
South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2015^a	2020^b	2025^b	2030^b
NOx	357	289	266	257
VOC	400	393	393	391
PM-10	161	165	170	172
PM-2.5	67	68	70	71

^a2015 Base Year.

^bWith current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, 2013 Almanac of Air Quality

In other air quality attainment plan reviews, EPA had disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relied on PM-2.5 control regulations that had not yet been approved or implemented. It was expected that a number of rules that were pending approval would remove the identified deficiencies. If these issues were not resolved within the next several years, federal funding sanctions for transportation projects could result. The 2012 AQMP included in the current California State Implementation Plan (SIP) was expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked almost ten years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long since revoked one-hour federal ozone standard. Because the current SIP for the basin contains a number of control measures for the 8-hour ozone standard that are equally effective for one-hour levels, the 2012 AQMP was believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board in March 2017, and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NOx, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 µg/m ³)	2025
8-hour ozone (75 ppb)	2024 (old standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)

24-hour PM-2.5 (35 $\mu\text{g}/\text{m}^3$) 2019

The key challenge is that NO_x emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NO_x control measures are adopted and implemented, ozone attainment goals may not be met.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing water infrastructure projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

STANDARDS OF SIGNIFICANCE

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects in the Coachella Valley

portion of the SCAQMD with daily emissions that exceed any of the following emission thresholds are to be considered significant under CEQA guidelines.

Table 5
Daily Emissions Thresholds

Pollutant	Construction¹	Operations²
ROG	75	75
NOx	100	100
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

¹ Construction thresholds apply to both the SCAB and the Coachella Valley (Salton Sea and Mojave Desert Air Basins).

² For Coachella Valley the mass daily emissions thresholds for operation are the same as the construction daily emissions thresholds.

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

SENSITIVE USES

The project will occur within various roadways generally located south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road. The southern boundary of the project site is about a half mile south of Hacienda Avenue.

The gross project area encompasses about 220 acres within the City of Desert Hot Springs, though the area of disturbance (trenches for installing the sewer line) is much less. The area is primarily residential with a few spa hotels. Most homes have at least a 50-foot setback to the roadway centerline.

CONSTRUCTION ACTIVITY IMPACTS

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

It is assumed that installation of 30,000 lineal feet of sewer line will occur over 160 days of construction over a period of about 8 months. The final activity associated with the sewer installation is repaving of roads disturbed by the construction. This is anticipated to occur over a 30 day period. Construction is assumed to begin in the summer of 2021.

Estimated construction emissions were modeled using CalEEMod2016.3.2 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled using default construction equipment and schedule for a project of this size using input from the project engineer as shown in Table 6.

Table 6
Pipeline Install
30,000 LF

Demo Roadway and Trench 2 months	1 Loader/Backhoe
	2 Trencher
	1 Concrete Saw
Install Pipe 6 months	2 Forklifts
	1 Welder
	1 Loader/Backhoe
Backfill and Pave 1 month	2 Concrete Mixers
	1 Paver
	1 Loader/Backhoes
	1 Roller
	1 Mixer

Utilizing this indicated equipment fleet and durations shown in Table 6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table 7.

Table 7
Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Maximal Construction Emissions	ROG	NO_x	CO	SO₂	PM-10	PM-2.5
2021 Unmitigated	1.2	10.2	10.2	0.0	5.5	3.2
2021 Mitigated	1.2	10.2	10.2	0.0	3.0	1.8
2022 Unmitigated	0.9	7.6	10.1	0.0	0.6	0.4
2022 Mitigated	0.9	7.6	10.1	0.0	0.6	0.4
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds without the need for added mitigation. Mitigated conditions reflect dust suppression associated with twice daily watering during demo and grading.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure.

LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NO_x), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project, the closest receptor 25-meter distance was used.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites for varying distances. For this site, the most stringent thresholds for a one-acre site were utilized.

The following thresholds and emissions in Table 8 are therefore determined (pounds per day):

Table 8
LST and Project Emissions (pounds/day)

LST Coachella Valley	CO	NO_x	PM-10	PM-2.5
LST Threshold	878	132	4	3
Max On-Site Emissions				
Unmitigated	10	10	5	3
Mitigated	10	10	3	2

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in Table 8, LST impacts are less-than-significant with at least twice daily watering during demo and grading activities.

NEPA CONFORMITY

Annualized construction activity emissions were calculated by assuming all construction activities would occur during the same calendar year to represent a worst-case condition. The calculated emissions were then compared to the EPA *de minimis* emission thresholds that would allow for a federal conformity finding with Section 176c of the Clean Air Act.

If the project-related emissions from construction and operations are less than specified “*de minimis*” levels, no further SIP consistency demonstration is required. There are no operational emissions associated with this project. The SCAB Coachella Valley is designated as a “extreme” non-attainment area for the federal 8-hour ozone standard. The basin is a non-attainment area for PM-2.5. Based upon these designations, the following emissions levels are presumed evidence of SIP conformity:

- VOC/ROG - 10 tons/year
- NOx - 10 tons/year
- PM-2.5 - 100 tons/year
- PM-10* - 70 tons/year
- SO₂ - 100 tons/year

*Air quality in Coachella Valley now meets the national PM10 standards. A request for redesignation to attainment has been submitted to EPA(2020)¹

Annual construction emissions were calculated with the CalEEMod computer model. Maximum annual project-related air pollution emissions relative to federal standard attainment designations and appropriate *de minimis* thresholds are shown in Table 8.

**Table 8
Total Annual Construction Emissions
(tons/year)**

Activity	ROG	NOx	CO	SO ₂	PM-10	PM-2.5	CO ₂
Maximal Construction Emissions							
2021	0.05	0.38	0.42	0.00	0.14	0.08	55.55
2022	0.03	0.22	0.29	0.00	0.02	0.01	40.48
Total	0.08	0.60	0.71	0.00	0.16	0.09	96.03
NEPA Threshold	10	10	100	100	70	100	-

Maximum annual emissions are much less than their associated *de minimis* thresholds. A formal SIP consistency analysis is not required.

OPERATIONAL IMPACTS

A gravity sewer project does not have any associated operational impacts.

¹ <https://ww3.arb.ca.gov/regact/2021/sad20/appc.pdf>

ODOR IMPACTS

Project operations (pumping and conveyance) are essentially a closed system with negligible odor potential. In addition, the project likely decrease odors as it will abate over 458 on-site septic systems.

CONSTRUCTION EMISSIONS MINIMIZATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin and proximity of residential uses. Recommended measures include:

Fugitive Dust Control

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NO_x) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better rated heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

GREENHOUSE GAS EMISSIONS

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” These greenhouse gases contribute to an increase in the temperature of the earth’s atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been

developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

THRESHOLDS OF SIGNIFICANCE

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to “select the model or methodology it considers most appropriate.” The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have enough expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for all land use projects where the SCAQMD is the lead agency of 3,000 Metric Tons (MT) CO₂ equivalent/year.

PROJECT RELATED GHG EMISSIONS GENERATION

Construction Activity GHG Emissions

The project is assumed to require less than one year for construction but will overlap two calendar years with construction commencing in the summer of 2021. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO₂e emissions identified in Table 9.

Table 9
Construction Emissions (Metric Tons CO₂e)

	CO₂e
Year 2021	56.6
Year 2022	40.5
Total	97.1
Amortized	3.2

CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. Both the total and the amortized level are provided. GHG impacts from construction are considered less-than-significant.

Consistency with GHG Plans, Programs and Policies

The City of Desert Hot Springs adopted an Initial Study, Negative Declaration for a Climate Action Plan in 2013. The plan identifies 80 specific actions to reduce GHG emissions. However, the proposed project is GHG neutral and will not increase electrical consumption or require additional personnel or maintenance. The project could be considered GHG positive because it will eliminate the need to clean and maintain individual septic systems for 676 parcels (458 on-site septic systems).

Since the project results in GHG emissions below the recommended SCAQMD 3,000 metric ton threshold for any land use project, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

CALEEMOD2016.3.2 COMPUTER MODEL OUTPUT

- DAILY EMISISONS
- ANNUAL EMISSIONS

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

**MSWD Areas H and I Sewer
Riverside-Salton Sea County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - 30,000 linear feet
- Construction Phase - Demo and Trench: 2 months, Pipeline Install: 6 months, Backfill and Pave: 1 month
- Off-road Equipment - Trenching: 1 loader/backhoe, 2 trenchers, 1 concrete saw
- Off-road Equipment - Pipeline Install: 2 forklifts, 1 loader/backhoe, 1 welder
- Off-road Equipment - Paving: 2 mixers, 1 paver, 1 paving, 1 pump, 1 loader/backhoe, 1 roller
- Trips and VMT - 30 worker trips per day
- Construction Off-road Equipment Mitigation -

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	129.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	PhaseEndDate	5/12/2022	3/30/2022
tblConstructionPhase	PhaseEndDate	8/5/2021	9/30/2021
tblConstructionPhase	PhaseEndDate	5/26/2022	4/29/2022
tblConstructionPhase	PhaseStartDate	8/6/2021	10/1/2021
tblConstructionPhase	PhaseStartDate	5/13/2022	4/1/2022
tblGrading	AcresOfGrading	16.50	1.50
tblLandUse	LotAcreage	0.00	1.50
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	PhaseName		Grading and Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading and Trenching
tblTripsAndVMT	WorkerTripNumber	0.00	30.00
tblTripsAndVMT	WorkerTripNumber	8.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00

2.0 Emissions Summary

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.2422	10.1768	10.1754	0.0158	4.8037	0.6777	5.4814	2.5532	0.6338	3.1870	0.0000	1,523.4507	1,523.4507	0.3028	0.0000	1,531.0198
2022	0.9268	7.5953	10.0814	0.0173	0.2510	0.3917	0.6427	0.0666	0.3714	0.4380	0.0000	1,639.9735	1,639.9735	0.3167	0.0000	1,647.8915
Maximum	1.2422	10.1768	10.1754	0.0173	4.8037	0.6777	5.4814	2.5532	0.6338	3.1870	0.0000	1,639.9735	1,639.9735	0.3167	0.0000	1,647.8915

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.2422	4.7622	10.1754	0.0158	2.2997	0.6777	2.9774	1.1855	0.6338	1.8194	0.0000	1,523.4507	1,523.4507	0.3028	0.0000	1,531.0198
2022	0.9268	5.3686	10.0814	0.0173	0.2510	0.3917	0.6427	0.0666	0.3714	0.4380	0.0000	1,639.9735	1,639.9735	0.3167	0.0000	1,647.8915
Maximum	1.2422	5.3686	10.1754	0.0173	2.2997	0.6777	2.9774	1.1855	0.6338	1.8194	0.0000	1,639.9735	1,639.9735	0.3167	0.0000	1,647.8915

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	43.00	0.00	0.00	49.54	0.00	40.89	52.20	0.00	37.73	0.00	0.00	0.00	0.00	0.00	0.00

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading and Trenching	Grading	8/1/2021	9/30/2021	5	44	
2	Pipeline Install	Building Construction	10/1/2021	3/30/2022	5	129	
3	Paving	Paving	4/1/2022	4/29/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading and Trenching	Trenchers	2	7.00	78	0.50
Pipeline Install	Forklifts	2	6.00	89	0.20
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Pumps	1	6.00	84	0.74
Grading and Trenching	Concrete/Industrial Saws	1	6.00	81	0.73
Pipeline Install	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading and Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipeline Install	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pipeline Install	7	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Trenching	3	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.2 Grading and Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.5527	0.0000	4.5527	2.4866	0.0000	2.4866			0.0000			0.0000
Off-Road	1.1252	10.1141	9.3171	0.0133		0.6761	0.6761		0.6324	0.6324		1,282.7610	1,282.7610	0.2969		1,290.1841
Total	1.1252	10.1141	9.3171	0.0133	4.5527	0.6761	5.2289	2.4866	0.6324	3.1190		1,282.7610	1,282.7610	0.2969		1,290.1841

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358
Total	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.2 Grading and Trenching - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0487	0.0000	2.0487	1.1190	0.0000	1.1190			0.0000			0.0000
Off-Road	1.1252	1.6588	9.3171	0.0133		0.6761	0.6761		0.6324	0.6324	0.0000	1,282.761 0	1,282.761 0	0.2969		1,290.184 1
Total	1.1252	1.6588	9.3171	0.0133	2.0487	0.6761	2.7249	1.1190	0.6324	1.7514	0.0000	1,282.761 0	1,282.761 0	0.2969		1,290.184 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358
Total	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.3 Pipeline Install - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6371	4.6994	5.1658	7.1800e-003		0.2835	0.2835		0.2667	0.2667		655.1990	655.1990	0.1718		659.4945
Total	0.6371	4.6994	5.1658	7.1800e-003		0.2835	0.2835		0.2667	0.2667		655.1990	655.1990	0.1718		659.4945

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358
Total	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.3 Pipeline Install - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6371	4.6994	5.1658	7.1800e-003		0.2835	0.2835		0.2667	0.2667	0.0000	655.1990	655.1990	0.1718		659.4945
Total	0.6371	4.6994	5.1658	7.1800e-003		0.2835	0.2835		0.2667	0.2667	0.0000	655.1990	655.1990	0.1718		659.4945

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358
Total	0.1171	0.0627	0.8583	2.4200e-003	0.2510	1.5300e-003	0.2525	0.0666	1.4000e-003	0.0680		240.6897	240.6897	5.8400e-003		240.8358

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.3 Pipeline Install - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5707	4.3020	5.1049	7.1800e-003		0.2363	0.2363		0.2225	0.2225		655.4532	655.4532	0.1697		659.6959
Total	0.5707	4.3020	5.1049	7.1800e-003		0.2363	0.2363		0.2225	0.2225		655.4532	655.4532	0.1697		659.6959

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310
Total	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.3 Pipeline Install - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5707	4.3020	5.1049	7.1800e-003		0.2363	0.2363		0.2225	0.2225	0.0000	655.4532	655.4532	0.1697		659.6959
Total	0.5707	4.3020	5.1049	7.1800e-003		0.2363	0.2363		0.2225	0.2225	0.0000	655.4532	655.4532	0.1697		659.6959

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310
Total	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8175	7.5389	9.2903	0.0149		0.3902	0.3902		0.3700	0.3700		1,408.0736	1,408.0736	0.3115		1,415.8606
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8175	7.5389	9.2903	0.0149		0.3902	0.3902		0.3700	0.3700		1,408.0736	1,408.0736	0.3115		1,415.8606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310
Total	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8175	5.3122	9.2903	0.0149		0.3902	0.3902		0.3700	0.3700	0.0000	1,408.0736	1,408.0736	0.3115		1,415.8606
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8175	5.3122	9.2903	0.0149		0.3902	0.3902		0.3700	0.3700	0.0000	1,408.0736	1,408.0736	0.3115		1,415.8606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310
Total	0.1093	0.0564	0.7911	2.3300e-003	0.2510	1.4900e-003	0.2525	0.0666	1.3700e-003	0.0679		231.8998	231.8998	5.2500e-003		232.0310

4.0 Operational Detail - Mobile

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

**MSWD Areas H and I Sewer
Riverside-Salton Sea County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 30,000 linear feet

Construction Phase - Demo and Trench: 2 months, Pipeline Install: 6 months, Backfill and Pave: 1 month

Off-road Equipment - Trenching: 1 loader/backhoe, 2 trenchers, 1 concrete saw

Off-road Equipment - Pipeline Install: 2 forklifts, 1 loader/backhoe, 1 welder

Off-road Equipment - Paving: 2 mixers, 1 paver, 1 paving, 1 pump, 1 loader/backhoe, 1 roller

Trips and VMT - 30 worker trips per day

Construction Off-road Equipment Mitigation -

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	129.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	PhaseEndDate	5/12/2022	3/30/2022
tblConstructionPhase	PhaseEndDate	8/5/2021	9/30/2021
tblConstructionPhase	PhaseEndDate	5/26/2022	4/29/2022
tblConstructionPhase	PhaseStartDate	8/6/2021	10/1/2021
tblConstructionPhase	PhaseStartDate	5/13/2022	4/1/2022
tblGrading	AcresOfGrading	16.50	1.50
tblLandUse	LotAcreage	0.00	1.50
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	PhaseName		Grading and Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading and Trenching
tblTripsAndVMT	WorkerTripNumber	0.00	30.00
tblTripsAndVMT	WorkerTripNumber	8.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00

2.0 Emissions Summary

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0515	0.3813	0.4161	6.5000e-004	0.1137	0.0243	0.1381	0.0583	0.0228	0.0811	0.0000	56.2716	56.2716	0.0113	0.0000	56.5549
2022	0.0307	0.2172	0.2869	4.7000e-004	0.0104	0.0116	0.0220	2.7500e-003	0.0110	0.0137	0.0000	40.2774	40.2774	8.0000e-003	0.0000	40.4773
Maximum	0.0515	0.3813	0.4161	6.5000e-004	0.1137	0.0243	0.1381	0.0583	0.0228	0.0811	0.0000	56.2716	56.2716	0.0113	0.0000	56.5549

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0515	0.1953	0.4161	6.5000e-004	0.0587	0.0243	0.0830	0.0282	0.0228	0.0510	0.0000	56.2715	56.2715	0.0113	0.0000	56.5549
2022	0.0307	0.1938	0.2869	4.7000e-004	0.0104	0.0116	0.0220	2.7500e-003	0.0110	0.0137	0.0000	40.2773	40.2773	8.0000e-003	0.0000	40.4773
Maximum	0.0515	0.1953	0.4161	6.5000e-004	0.0587	0.0243	0.0830	0.0282	0.0228	0.0510	0.0000	56.2715	56.2715	0.0113	0.0000	56.5549

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	34.99	0.00	0.00	44.38	0.00	34.43	49.28	0.00	31.73	0.00	0.00	0.00	0.00	0.00	0.00

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2021	10-31-2021	0.3098	0.1256
2	11-1-2021	1-31-2022	0.1759	0.1759
3	2-1-2022	4-30-2022	0.1926	0.1695
		Highest	0.3098	0.1759

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading and Trenching	Grading	8/1/2021	9/30/2021	5	44	
2	Pipeline Install	Building Construction	10/1/2021	3/30/2022	5	129	
3	Paving	Paving	4/1/2022	4/29/2022	5	21	

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading and Trenching	Trenchers	2	7.00	78	0.50
Pipeline Install	Forklifts	2	6.00	89	0.20
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Pumps	1	6.00	84	0.74
Grading and Trenching	Concrete/Industrial Saws	1	6.00	81	0.73
Pipeline Install	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading and Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipeline Install	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pipeline Install	7	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading and Trenching	3	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	30.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading and Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1002	0.0000	0.1002	0.0547	0.0000	0.0547	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2225	0.2050	2.9000e-004		0.0149	0.0149		0.0139	0.0139	0.0000	25.6014	25.6014	5.9300e-003	0.0000	25.7496
Total	0.0248	0.2225	0.2050	2.9000e-004	0.1002	0.0149	0.1150	0.0547	0.0139	0.0686	0.0000	25.6014	25.6014	5.9300e-003	0.0000	25.7496

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.2 Grading and Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2900e-003	1.4700e-003	0.0162	5.0000e-005	5.4300e-003	3.0000e-005	5.4600e-003	1.4400e-003	3.0000e-005	1.4700e-003	0.0000	4.4222	4.4222	1.1000e-004	0.0000	4.4248
Total	2.2900e-003	1.4700e-003	0.0162	5.0000e-005	5.4300e-003	3.0000e-005	5.4600e-003	1.4400e-003	3.0000e-005	1.4700e-003	0.0000	4.4222	4.4222	1.1000e-004	0.0000	4.4248

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0451	0.0000	0.0451	0.0246	0.0000	0.0246	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.0365	0.2050	2.9000e-004		0.0149	0.0149		0.0139	0.0139	0.0000	25.6014	25.6014	5.9300e-003	0.0000	25.7496
Total	0.0248	0.0365	0.2050	2.9000e-004	0.0451	0.0149	0.0600	0.0246	0.0139	0.0385	0.0000	25.6014	25.6014	5.9300e-003	0.0000	25.7496

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.2 Grading and Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2900e-003	1.4700e-003	0.0162	5.0000e-005	5.4300e-003	3.0000e-005	5.4600e-003	1.4400e-003	3.0000e-005	1.4700e-003	0.0000	4.4222	4.4222	1.1000e-004	0.0000	4.4248
Total	2.2900e-003	1.4700e-003	0.0162	5.0000e-005	5.4300e-003	3.0000e-005	5.4600e-003	1.4400e-003	3.0000e-005	1.4700e-003	0.0000	4.4222	4.4222	1.1000e-004	0.0000	4.4248

3.3 Pipeline Install - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0210	0.1551	0.1705	2.4000e-004		9.3600e-003	9.3600e-003		8.8000e-003	8.8000e-003	0.0000	19.6148	19.6148	5.1400e-003	0.0000	19.7434
Total	0.0210	0.1551	0.1705	2.4000e-004		9.3600e-003	9.3600e-003		8.8000e-003	8.8000e-003	0.0000	19.6148	19.6148	5.1400e-003	0.0000	19.7434

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.3 Pipeline Install - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4300e-003	2.2100e-003	0.0244	7.0000e-005	8.1400e-003	5.0000e-005	8.2000e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	6.6332	6.6332	1.6000e-004	0.0000	6.6372
Total	3.4300e-003	2.2100e-003	0.0244	7.0000e-005	8.1400e-003	5.0000e-005	8.2000e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	6.6332	6.6332	1.6000e-004	0.0000	6.6372

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0210	0.1551	0.1705	2.4000e-004		9.3600e-003	9.3600e-003		8.8000e-003	8.8000e-003	0.0000	19.6147	19.6147	5.1400e-003	0.0000	19.7433
Total	0.0210	0.1551	0.1705	2.4000e-004		9.3600e-003	9.3600e-003		8.8000e-003	8.8000e-003	0.0000	19.6147	19.6147	5.1400e-003	0.0000	19.7433

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.3 Pipeline Install - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4300e-003	2.2100e-003	0.0244	7.0000e-005	8.1400e-003	5.0000e-005	8.2000e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	6.6332	6.6332	1.6000e-004	0.0000	6.6372
Total	3.4300e-003	2.2100e-003	0.0244	7.0000e-005	8.1400e-003	5.0000e-005	8.2000e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	6.6332	6.6332	1.6000e-004	0.0000	6.6372

3.3 Pipeline Install - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0180	0.1355	0.1608	2.3000e-004		7.4400e-003	7.4400e-003		7.0100e-003	7.0100e-003	0.0000	18.7304	18.7304	4.8500e-003	0.0000	18.8517
Total	0.0180	0.1355	0.1608	2.3000e-004		7.4400e-003	7.4400e-003		7.0100e-003	7.0100e-003	0.0000	18.7304	18.7304	4.8500e-003	0.0000	18.8517

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.3 Pipeline Install - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0600e-003	1.9000e-003	0.0214	7.0000e-005	7.7700e-003	5.0000e-005	7.8200e-003	2.0600e-003	4.0000e-005	2.1100e-003	0.0000	6.1008	6.1008	1.4000e-004	0.0000	6.1042
Total	3.0600e-003	1.9000e-003	0.0214	7.0000e-005	7.7700e-003	5.0000e-005	7.8200e-003	2.0600e-003	4.0000e-005	2.1100e-003	0.0000	6.1008	6.1008	1.4000e-004	0.0000	6.1042

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0180	0.1355	0.1608	2.3000e-004		7.4400e-003	7.4400e-003		7.0100e-003	7.0100e-003	0.0000	18.7304	18.7304	4.8500e-003	0.0000	18.8517
Total	0.0180	0.1355	0.1608	2.3000e-004		7.4400e-003	7.4400e-003		7.0100e-003	7.0100e-003	0.0000	18.7304	18.7304	4.8500e-003	0.0000	18.8517

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.3 Pipeline Install - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0600e-003	1.9000e-003	0.0214	7.0000e-005	7.7700e-003	5.0000e-005	7.8200e-003	2.0600e-003	4.0000e-005	2.1100e-003	0.0000	6.1008	6.1008	1.4000e-004	0.0000	6.1042
Total	3.0600e-003	1.9000e-003	0.0214	7.0000e-005	7.7700e-003	5.0000e-005	7.8200e-003	2.0600e-003	4.0000e-005	2.1100e-003	0.0000	6.1008	6.1008	1.4000e-004	0.0000	6.1042

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5800e-003	0.0792	0.0976	1.6000e-004		4.1000e-003	4.1000e-003		3.8900e-003	3.8900e-003	0.0000	13.4125	13.4125	2.9700e-003	0.0000	13.4867
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.5800e-003	0.0792	0.0976	1.6000e-004		4.1000e-003	4.1000e-003		3.8900e-003	3.8900e-003	0.0000	13.4125	13.4125	2.9700e-003	0.0000	13.4867

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.3000e-004	7.1400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0336	2.0336	5.0000e-005	0.0000	2.0347
Total	1.0200e-003	6.3000e-004	7.1400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0336	2.0336	5.0000e-005	0.0000	2.0347

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5800e-003	0.0558	0.0976	1.6000e-004		4.1000e-003	4.1000e-003		3.8900e-003	3.8900e-003	0.0000	13.4125	13.4125	2.9700e-003	0.0000	13.4867
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.5800e-003	0.0558	0.0976	1.6000e-004		4.1000e-003	4.1000e-003		3.8900e-003	3.8900e-003	0.0000	13.4125	13.4125	2.9700e-003	0.0000	13.4867

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0200e-003	6.3000e-004	7.1400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0336	2.0336	5.0000e-005	0.0000	2.0347
Total	1.0200e-003	6.3000e-004	7.1400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	1.0000e-005	7.0000e-004	0.0000	2.0336	2.0336	5.0000e-005	0.0000	2.0347

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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MSWD Areas H and I Sewer - Riverside-Salton Sea County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX 2

Biological Resources Assessment & Jurisdictional Delineation Report



Jacobs



Mission Springs Water District
Areas H and I Sewer Improvements Project
Biological Resources Assessment, Jurisdictional Delineation Report
And Land Use Consistency Analysis

Document No. | Final
March 2021

Tom Dodson & Associates

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Areas H and I Sewer Improvements Project

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Appendix A. CNDDDB Species and Habitats Documented Within the *Seven Palms Valley* and *Desert Hot Springs* USGS 7.5-Minute Quadrangles

Appendix B. Site Photos

Appendix C. Regulatory Framework

Executive Summary

Jacobs Engineering Group, Inc. was retained by Tom Dodson and Associates to conduct a Biological Resources Assessment, Jurisdictional Delineation and Land Use Consistency Analysis for the Mission Springs Water District's proposed Areas H and I Sewer Improvements Project located in the City of Desert Hot Springs, Riverside County, California. The Project would consist of installing approximately 30,000 linear feet of 8-inch sewer pipeline to eliminate septic tanks that threaten contamination of groundwater supplies by expanding the District's wastewater collection system.

In November of 2020, Jacobs biologists conducted a Biological Resources Assessment survey to address potential effects of the Project on designated Critical Habitats and/or special status species. Results of the Biological Resources Assessment are intended to provide sufficient baseline information to the Project Proponent and, if required, to City and/or County planning officials and federal and state regulatory agencies to determine if the Project is likely to result in any adverse effects on sensitive biological resources and to identify mitigation measures to offset those effects. Data regarding biological resources in the Project vicinity were obtained through literature review and field investigation. Available databases and documentation relevant to the Project Area were reviewed for documented occurrences of sensitive species that could potentially occur in the Project vicinity, including the U.S. Fish and Wildlife Service designated Critical Habitat online mapper and Information for Planning and Consultation System, as well as the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory. The result of the reconnaissance-level field survey was that no state or federally listed species were identified within the Project Area and the Project is not within any federal Critical Habitat. Due to the environmental conditions on site and the adjacent disturbances, the Project Area is likely not suitable to support any of the special status wildlife species that have been documented in the Project vicinity (within approximately 3 miles).

Jacobs biologists also assessed the Project Area for the presence of state and/or federal jurisdictional waters that may potentially be impacted by the Project. The jurisdictional waters assessment was conducted in accordance with the U.S. Army Corps of Engineers *Wetlands Delineation Manual, Jurisdictional Determination Form Instructional Guidebook, Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* and the Environmental Protection Agency and the Department of the Army's *"Navigable Waters Protection Rule: Definition of 'Waters of the United States,'" April 21, 2020 (effective June 22, 2020)*. The result of the jurisdictional waters assessment is that there are no wetland or non-wetland jurisdictional waters within the Project Area. Therefore, the Project will not impact any jurisdictional waters and no state or federal jurisdictional waters permitting will be required under current regulation.

The Project site falls entirely within the Coachella Valley Multiple Species Habitat Conservation Plan area and the MSWD and City of Desert Hot Springs are both signatories to the CVMSHCP. Therefore, Jacobs also conducted a Land Use Consistency analysis to determine whether the Project is consistent with the Conservation Goals and Objectives of the CVMSHCP.

This report describes delineated resources, provides an aquatic resource delineation map, identifies state and/or federally listed species with potential to occur on site and presents representative site photographs. The delineation results and conclusions presented in this report are considered preliminary and valid under current regulatory context. Additionally, according to protocol and standard practices, the results of the habitat assessment surveys will remain valid for the period of one year, or until November 2021, after which time, if the site has not been disturbed in the interim, another survey may be required to determine the persisting absence of special status species and to verify environmental conditions on site. Regardless of survey results and conclusions given herein, if any state or federally listed species are found on site during Project-related work activities, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions.

1. Introduction

Mission Springs Water District (MSWD or District) provides water and sewer services to the communities of Desert Hot Springs, West Garnet, North Palm Springs, and various portions of unincorporated Riverside County. MSWD, as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to install approximately 30,000 linear feet (LF) of 8-inch sewer pipeline within Areas H and I (refer to Figures 1 and 2) to eliminate septic tanks that threaten contamination of groundwater supplies by expanding MSWD's wastewater collection system. This would also protect hot mineral water, which is the economic basis of the community's spa industry.

In February of 1999, MSWD adopted the MSWD Sewer Improvement Project, which was intended to convert approximately 5,000 existing septic disposal treatment systems to a sewer conveyance and treatment system. The project was approved to develop about 62.8 miles of sewer line and a one million gallon per day (MGD) expansion of the District's Horton Wastewater Treatment Plant. In March of 2011, MSWD adopted an Addendum to the MSWD Sewer Improvement Project titled "Addendum No. 1 for AD-12 Sewer Improvement Project," which would enable the District to install about 57 miles of sewer pipelines and wastewater collection within the District's service area. The proposed Areas H and I Sewer Improvements Project is an extension of the original project from 1999, but because over 20 years have passed since the original project was adopted, and since the checklist as substantially changed, a follow on Initial Study is being prepared to address the potential impacts from installation of the proposed 25,000 LF of sewer pipeline.

The District developed a Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater. The overall GQPP is designed to protect groundwater quality from degradation by discharges from septic tank leach-fields. The GQPP would ultimately remove more than 8,100 septic tanks for connection to MSWD's sewer system. The proposed Areas H and I Sewer Improvements Project focuses on Sub Areas H and I and its construction to connect 676 parcels to the MSWD sewer system and abate over 458 on-site septic systems. Additionally, the proposed project would increase wastewater effluent available for treatment to tertiary levels and for reuse as recycled water.

On behalf of Tom Dodson and Associates (TDA), Jacobs Engineering Group, Inc. (Jacobs) has prepared this Biological Resources Assessment (BRA) report for the District's proposed Areas H and I Sewer Improvements Project (Project). The BRA fieldwork was conducted by Jacobs biologist Lisa Patterson in November 2020. The purpose of the BRA survey was to address potential effects of the Project on designated Critical Habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA), as well as any species otherwise designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS).

The Project Area was assessed for sensitive species known to occur locally. Attention was focused on those state and/or federally listed as threatened or endangered species and California Fully Protected species that have been documented in the vicinity of the Project Area, whose habitat requirements are present within or adjacent to the Project Area. Results of the habitat assessment are intended to provide sufficient baseline information to the Project Proponent (MSWD) and, if required, to City, County or other local government planning officials and federal and state regulatory agencies, including the U.S. Fish and Wildlife Service (USFWS) and CDFW, respectively, to determine if the Project is likely to result in any adverse effects on sensitive biological resources and to identify mitigation measures to offset those effects.

In addition to the BRA survey, Jacobs biologists assessed the Project Area for the presence of state and/or federal jurisdictional waters potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the

CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1600 of the California FGC, respectively.

Finally, the Project site falls entirely within the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) area. The MSWD and City of Desert Hot Springs are both signatories to the CVMSHCP. Therefore, Jacobs also conducted a Land Use Consistency analysis to determine whether the Project is consistent with the Conservation Goals and Objectives of the CVMSHCP.

1.1 Project Description

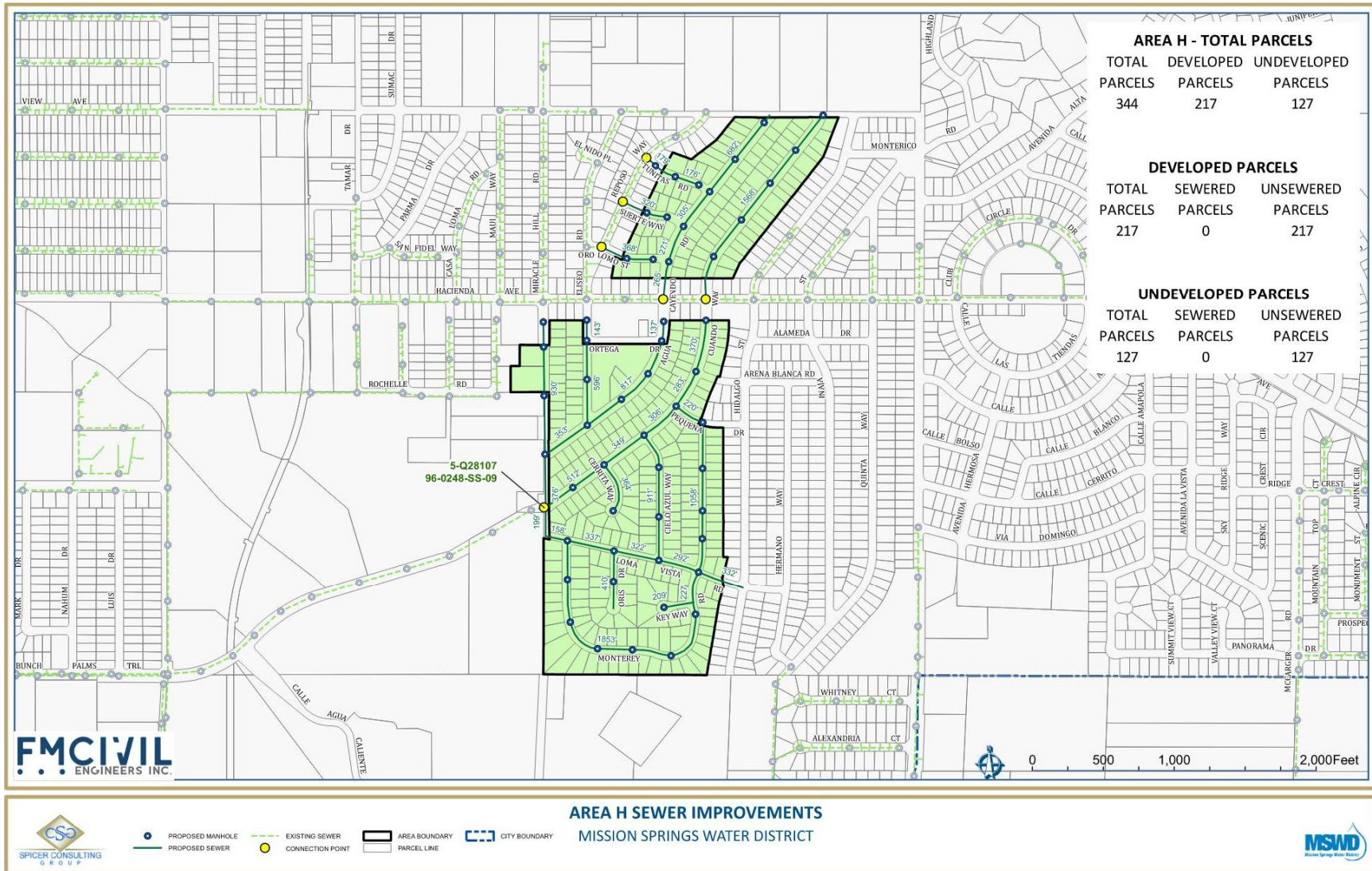
MSWD proposes to construct 30,000 LF of new sewer pipeline that would be 8-inch in diameter within Sub Areas H and I of the District's service area, within an area of approximately 220 acres. All main pipelines will utilize 8" vitrified clay pipe (VCP) and service laterals will utilize 4" VCP piping. Figures 1 and 2 depict Sub Areas H and I and the proposed pipeline alignments. As stated above, the installation of this new sewer pipeline would convert areas within MSWD's service area from septic system to a sewer system. This Project pertains to Sub Areas H and I and would install the pipeline required to connect 676 parcels to the MSWD sewer system and abate over 458 on-site septic systems.

The proposed Project would install pipeline within several existing roadways as they align with Sub Areas H and I (Figures 1 and 2). The proposed Project involves installation of pipeline at one location that is not within a roadway to connect sewer pipeline from Hidalgo Street/Yerxa Rd to Quinta Way. This pipeline will skirt the boundaries of the homes within Sub Area I.

It is assumed that an underground utility installation team can install approximately 200 to 400 lineal feet of sewer, force mains, or recycled water line per day. Therefore, it is anticipated that installation of 30,000 lineal feet (LF) of sewer line will occur over 125 days of construction over a period of about 6 months. The final activity associated with the sewer installation is repaving of roads disturbed by the construction. This is anticipated to occur over a 20-day period. A team consists of the following:

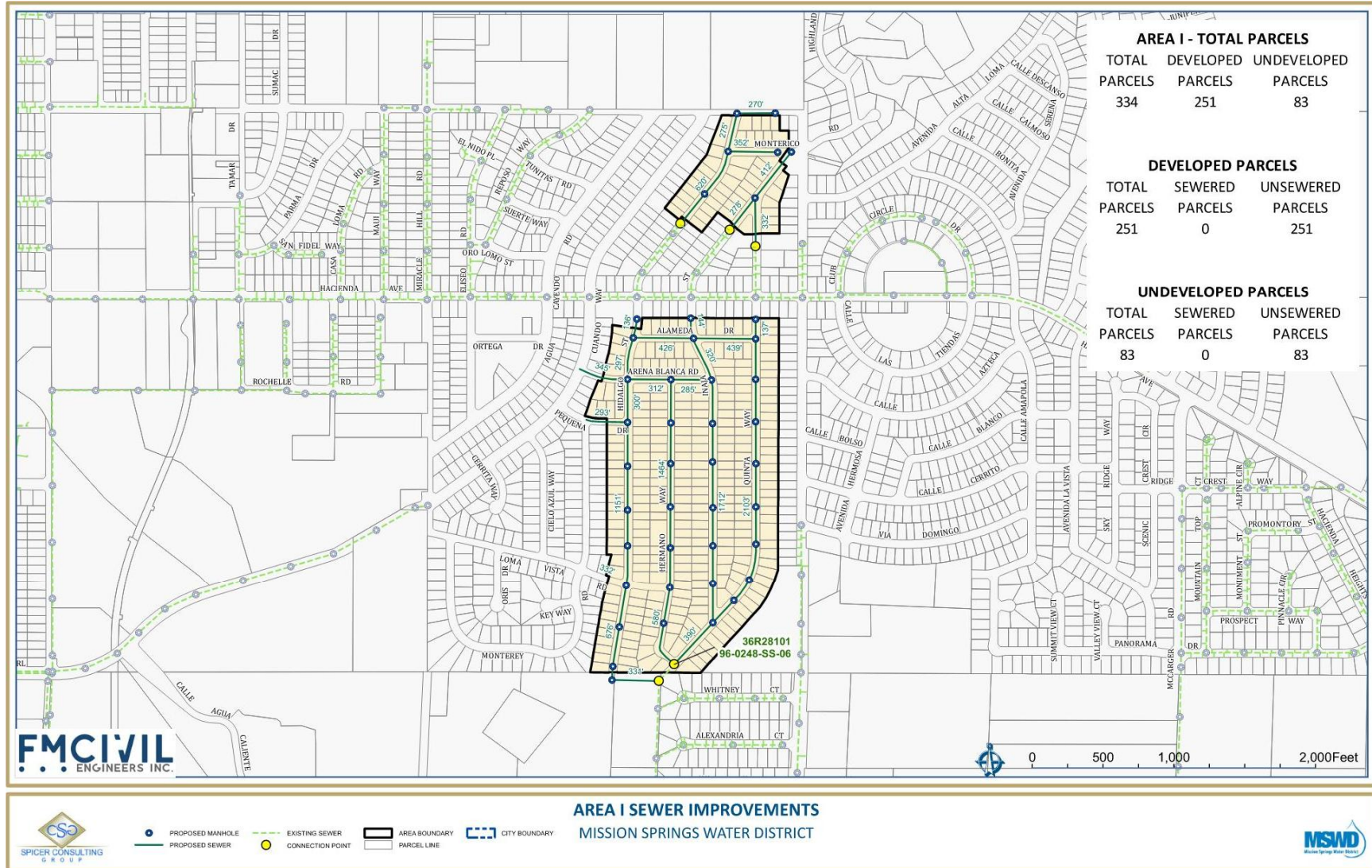
- 1 Excavator
- 1 Backhoe
- 1 Paver
- 1 Roller
- 1 Water truck
- Traffic Control Signage and Devices
- 10 Dump/delivery trucks (80 miles round trip distance)
- Employees (11 members per team)

The Project will utilize open cut trenching and jack and bore techniques. The trench width will be 3 feet maximum with a maximum of 5 feet at the top for pavement cutting. The depth to the invert of the pipe will be approximately 8 feet deep in the open cut trench areas and approximately 13 feet deep under the existing drainage channel between Hidalgo Street and Quinta Way.



SOURCE: Spicer Consulting Group & MSWD

FIGURE 1



SOURCE: Spicer Consulting Group & MSWD

FIGURE 2

Jacobs **Area I Sewer Improvements**
 MSWD Areas H and I Sewer Improvements Project

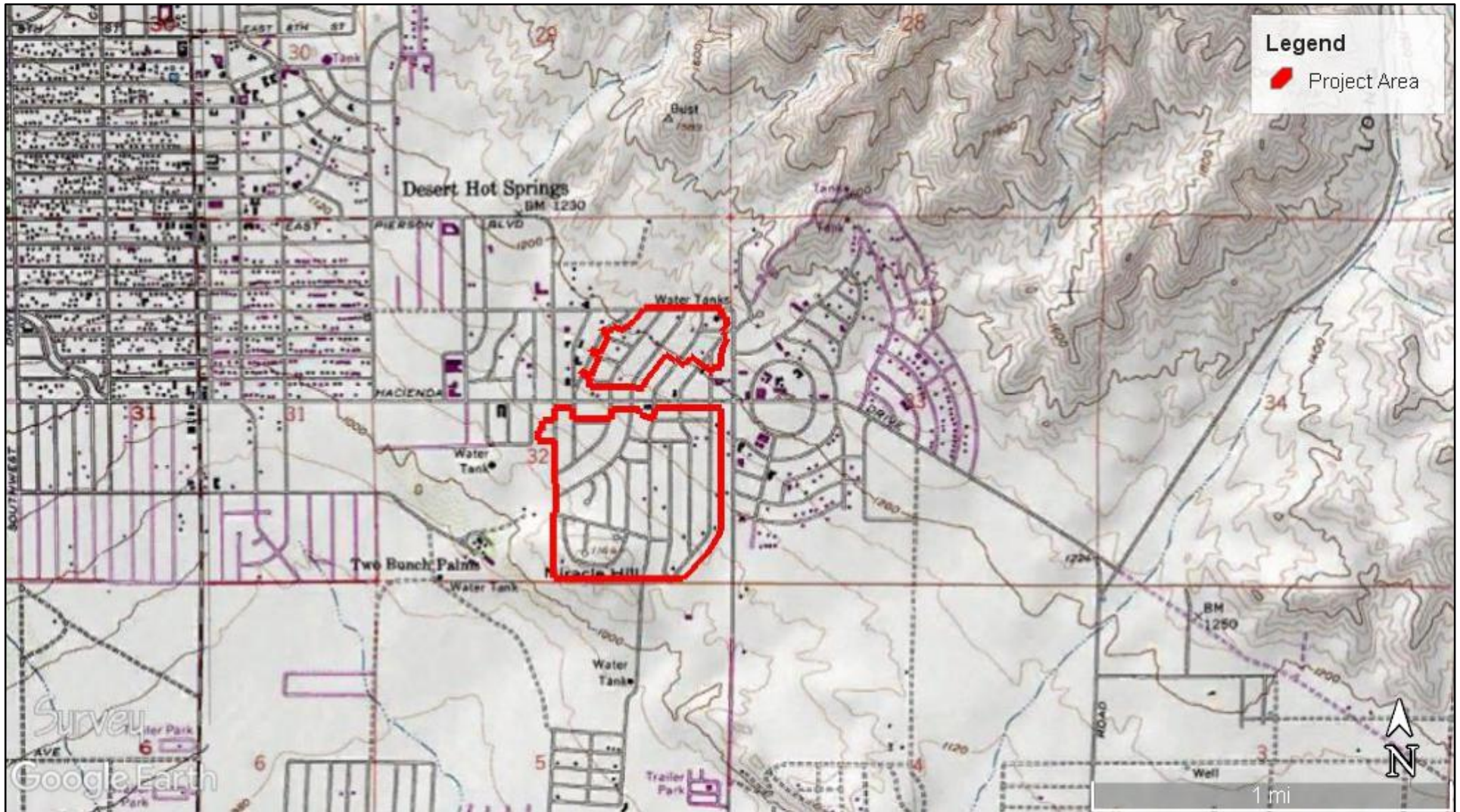
1.2 Location

The proposed Project is generally located in the City of Desert Hot Springs, Riverside County, California, in Section 32 of Township 2 South, Range 5 East, San Bernardino Base Meridian (Figures 3 & 4). The Project Area is depicted on the *Seven Palms Valley* U. S. Geological Survey's (USGS) 7.5-Minute Series Quadrangle map. Specifically, the Project Area is located approximately 4.8 miles northeast of the Interstate 10 (I 10) Exit 123 (Palm Drive, Gene Autry Trail) and is bisected by Hacienda Avenue (Figures 4 & 5). The eastern boundary of the Project Area parallels Mountain View Road to the east; the western boundary extends along Miracle Hill Road, south of Hacienda Avenue; the southern boundary is approximately 0.5 mile south of Hacienda Avenue, between Mountain View Road to the east and Miracle Hill Road to the west; and the northern boundary of the Project Area parallels Desert View Avenue to the north, between Mountain View Road to the east and Reposo Way to the west (Figures 4 & 5).



SOURCE: Google Earth

FIGURE 3



SOURCE: Google Earth

FIGURE 4



SOURCE: Google Earth

FIGURE 5

1.3 Environmental Setting

The Project Area lies in the geographically based ecological classification known as the Upper Coachella Valley and Hills of the Sonoran Basin and Range in southern California (Griffith et al. 2016). The goal of regional ecological classifications is to reduce variability based on spatial covariance in climate, geology, topography, climax vegetation, hydrology, and soils. The Upper Coachella Valley and Hills ecoregion is a transitional desert region with some affinities to the Mojave Basin and Range ecoregion to the north and is surrounded by mountains, except to the south where it descends toward the agricultural lands and Salton Sea (Griffith et al. 2016).

The Desert Hot Springs area is situated in the northwestern end of the Coachella Valley and is bordered on the north and northeast by the Little San Bernardino Mountains, on the east/southeast by the Seven Palms Valley and Edom Hills and on the west by the San Bernardino Mountain foothills. The topography of the Project Area consists of an urban landscape that slopes downward from northeast to southwest, built over naturally occurring alluvial fans and bajadas. The elevation of the Project Area ranges from approximately 1,040 feet above mean sea level (amsl) near the southwestern limits of the Project Area to 1,250 feet amsl near the northeastern-most limits.

The Project Area is within a hot desert climate (BWh), characterized by year-round high temperatures, low humidity, and considerable variation in the occurrence, intensity, and distribution of precipitation. Average annual maximum temperatures within the Project Area peak at 108.2 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 42.3° F in December and January. Average total annual precipitation is approximately 5.49 inches and reaches a peak in January (1.13 inches). Precipitation is lowest in the months of June and July (0.05 inches per month).

Hydrologically, the Project Area is situated within the Miracle Hill Hydrologic Sub-Area (HSA 719.43). The Miracle Hill HSA comprises a 44,525-acre drainage area, within the larger Whitewater River Watershed (HUC 18100201). The Whitewater River is the major hydrogeomorphic feature within the Whitewater River Watershed and is one of the main tributaries to the Salton Sea. The nearest tributary to the Whitewater River is Morongo Wash, which is approximately 2 miles west of the Project Area at its closest point.

Soils within the Project Area are comprised mostly of Carsitas gravelly sand, 0 to 9 percent slopes, and Carsitas gravelly sand, 9 to 30 percent slopes. Carsitas family soils consist of gravelly sand that is comprised of gravelly alluvium derived from granite. This soil type is excessively drained, with a low to very low runoff class and does not have a hydric soil rating.

The City of Desert Hot Springs is a desert community situated north of the City of Palms Springs, along the southern foothills of the Little San Bernardino Mountains, that consists of a mix of urban landscapes and undeveloped desert scrub habitats (Figure 5). The Project Area is entirely within an urban environment consisting of single-family residential development and is surrounded by residential development and undeveloped land. Habitat within the surrounding undeveloped areas consist mostly of Mojave mixed woody scrub and Sonoran mixed woody and succulent scrub plant communities.

2. Assessment Methodology

2.1 Biological Resources Assessment

Data regarding biological resources in the Project vicinity were obtained through literature review, desktop evaluation and field investigation. Prior to performing the field survey, available databases, and documentation relevant to the Project Area were reviewed for documented occurrences of sensitive species that could potentially occur in the Project vicinity. The USFWS designated Critical Habitat online mapper, USFWS Information for Planning and Consultation System (IPaC) and the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data in the *Seven Palms Valley* and *Desert Hot Springs* USGS 7.5-Minute Series Quadrangles. The Project Area is situated within the *Seven Palms Valley* quad and the sites' proximity to the *Desert Hot Springs* quad lead to its inclusion in the review. These databases contain records of reported occurrences of state and federally listed species or otherwise sensitive species and habitats that may occur within the vicinity of the Project site (approximately 3 miles). Other available technical information on the biological resources of the area was also reviewed including previous surveys and recent findings.

2.1.1 Biological Resources Assessment Field Survey

Jacobs biologist Lisa Patterson conducted a biological resources assessment of the Project Area on November 2, 2020. The reconnaissance-level field survey area encompassed the entire proposed Project Area and consisted of a pedestrian survey of the proposed Project footprint, as well as the immediate surrounding area where feasible and appropriate (i.e. no adjacent private properties were accessed without prior authorization from the property owners). Wildlife species were detected during field surveys by sight, calls, tracks, scat, and/or other sign. In addition to species observed, expected wildlife usage of the site was determined based on known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species survey was to identify potential habitat for special status wildlife that may occur within the Project vicinity.

2.2 Jurisdictional Delineation

On November 2, 2020, Ms. Patterson also evaluated the Project Area for the presence of riverine/riparian/wetland habitat and jurisdictional waters, i.e. Waters of the U.S. (WOTUS), as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW. Prior to the field visit, aerial photographs of the Project Area were viewed and compared with the surrounding USGS 7.5-Minute Topographic Quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" Google Earth Pro data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) "Web Soil Survey" was reviewed for soil types found within the Project Area to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Upstream and downstream connectivity of waterways (if present) were reviewed on Google Earth Pro aerial photographs and topographic maps to determine jurisdictional status. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Water Mark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents listed below:

- *USACE – Corps of Engineers Wetlands Delineation Manual, Wetlands Research Program Technical Report Y-87-1 (on-line edition), January 1987 - Final Report.*

- USACE – *Jurisdictional Determination Form Instructional Guidebook (JD Form Guidebook)*, May 30, 2007.
- USACE – *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (A Delineation Manual)*, August 2008.
- USACE – *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*, September 2008.
- USACE – *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (Minimum Standards)*, January 2016.
- The Environmental Protection Agency (EPA) and the Department of the Army's "Navigable Waters Protection Rule: Definition of 'Waters of the United States,'" April 21, 2020 (effective June 22, 2020) (85 FR 22250).

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: *hydrophytic vegetation*, *hydric soils*, and *wetland hydrology*.

- ▶ ***Hydrophytic vegetation***: Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2018 National Wetland Plant Lists for the Arid West Region (USACE 2018). Each species on the lists is rated with a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

Table 1. Wetland Indicator Vegetation Categories

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

- ▶ ***Hydric Soil***: Soil maps from the USDA-NRCS Web Soil Survey (USDA 2021) were reviewed for soil types found within the Project Area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are several indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Munsell 2000). Soil pits are dug (when necessary) to an approximate depth of 16-20 inches to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

- ▶ Wetland Hydrology. The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987 and USACE 2008).

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent of associated riparian vegetation.

3. Results

3.1 Existing Biological and Physical Conditions

The Project Area consists of the approximately 172-acre area that encompasses the entire extent of the proposed temporary footprint of the new sewer line, which includes all anticipated construction ground disturbance and physical location of new sewer line. Existing disturbances within the immediate Project Area primarily consist of residential development and paved roadways. Habitat intactness within the surrounding undeveloped areas is highly fragmented. Land cover within Project Area consists of urban development, and surrounding land cover consists of a mix of urban and Mojave mixed woody scrub and Sonoran mixed woody and succulent scrub habitats.

The proposed impact area is completely disturbed, consisting of paved streets and previously graded, compact bare ground (see attached Site Photos). The Project Area no longer supports any undisturbed habitat and the only species expected to occur within the Project Area are those adapted to an urban environment. Birds were the only wildlife group observed during the survey and species observed or otherwise detected in the Project Area during the reconnaissance-level survey included:

- red-tailed hawk (*Buteo jamaicensis*)
- Gambel's quail (*Callipepla gambelii*)
- Costa's hummingbird (*Calypte costae*)
- rock pigeon (*Columba livia*)
- common raven (*Corvus corax*)
- house finch (*Haemorhous mexicanus*)
- northern mockingbird (*Mimus polyglottos*)
- house sparrow (*Passer domesticus*)
- black phoebe (*Sayornis nigricans*)
- white-winged dove (*Zenaida asiatica*)
- mourning dove (*Zenaida macroura*)
- white-crowned sparrow (*Zonotrichia leucophrys*)

3.2 Special Status Species and Habitats

According to the CNDDDB, CNPSEI, and other relevant literature and databases, 29 sensitive species (11 plant species, 18 animal species) and two sensitive habitats have been documented in the *Seven Palms Valley* and *Desert Hot Springs* USGS 7.5-Minute Series Quadrangles. This list of sensitive species and habitats includes any state and/or federally listed threatened or endangered species, California Fully Protected species, CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

Of the seven state and/or federally listed species documented within the *Seven Palms Valley* and *Desert Hot Springs* quads, the following three state and/or federally listed species have been documented in the Project vicinity (within approximately 3 miles):

- Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*)
- Mojave desert tortoise (*Gopherus agassizii*)
- Coachella Valley fringe-toed lizard (*Uma inornata*)

However, the Project Area consists entirely of urban landscape and the habitat requirements for these species are absent from the proposed impact area. The habitat within the undeveloped portions of the surrounding area is disturbed and highly fragmented, and the aeolian sand dune habitat that Coachella Valley fringe-toed lizard require are absent from the Project Area and immediate vicinity. Therefore, the Project Area is not suitable to support Mojave desert tortoise or Coachella Valley fringe-toed lizard and these species are not expected to occur within or adjacent the Project Area. Furthermore, and the soils within the unpaved portions of the proposed impact area consist of previously graded, compact ground that is not suitable for Coachella Valley milk-vetch.

Although not a state or federally listed as threatened or endangered species, burrowing owl (*Athene cunicularia* [BUOW]) are considered a State and federal SSC and this species is protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California FGC (FGC #3513 & #3503.5). This species has been documented approximately 0.5 mile northwest of the Project Area. However, there is no suitable BUOW habitat within or adjacent the Project Area, due to existing human disturbance and habitat fragmentation.

3.2.1 Special Status Species

No state and/or federally listed threatened or endangered species, or other sensitive species were observed within the Project Area during the reconnaissance-level field survey and due to the environmental conditions within and adjacent the proposed Project footprint, none are expected to occur. An analysis of the likelihood for occurrence of all CNDDDB sensitive species documented in the *Seven Palms Valley* and *Desert Hot Springs* quads is provided in Appendix A. This analysis considers species' range as well as documentation within the vicinity of the Project Area and includes the habitat requirements for each species and the potential for their occurrence on site, based on required habitat elements and range relative to the current site conditions.

3.2.2 Special Status Habitats

The Project Area does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species. The nearest Critical Habitat unit is approximately 1.5 mile west of the Project Area. This Critical Habitat unit is part of the Mission Creek Morongo Wash System (Unit 3) of USFWS designated Critical Habitat for the federally listed as endangered Coachella Valley milk-vetch. However, no portion of the Project Area is within or adjacent this Critical Habitat unit, or any other sensitive habitats. Therefore, the Project will not result in any loss or adverse modification of USFWS designated Critical Habitat, or any other special status habitats.

3.3 Jurisdictional Delineation

The Project Area is within the Miracle Hill Hydrologic Sub-Area (HSA 719.43). The Miracle Hill HSA comprises a 44,525-acre drainage area, within the larger Whitewater River Watershed (HUC 18100201). This watershed is primarily within Riverside County, with a small portion in San Bernardino County. The Whitewater River Watershed is bound on the north by the Santa Ana and Southern Mojave Watersheds, on the southeast by the Salton Sea Watershed, on the southwest by the San Felipe Creek and Santa Margarita Watersheds, and on the west by the San Jacinto Watershed. The Whitewater River Watershed encompasses a portion of the San Bernardino and Little San Bernardino Mountains to the north and the San Jacinto Mountains to the south and is approximately 1,500 square miles in area. The Whitewater River is the major hydrogeomorphic feature within the Whitewater River Watershed. The nearest tributary to the Whitewater River is Morongo Wash, which is approximately 2 miles west of the Project Area at its closest point.

Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in WOTUS under Section 404 of the CWA. According to the EPA and the Department of the Army's April 21, 2020 (effective June 22, 2020) "Navigable Waters Protection Rule: Definition of 'Waters of the United States,'" WOTUS are defined as: "The territorial seas and traditional navigable waters; perennial and intermittent tributaries that contribute surface water flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters." (85 FR 22250). The Navigable Waters Protection Rule (NWPR) specifically excludes from the definition of WOTUS:

- "Groundwater, including groundwater drained through subsurface drainage systems;
- ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools;
- diffuse stormwater runoff and directional sheet flow over upland;
- ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands, subject to certain limitations;
- prior converted cropland;
- artificially irrigated areas that would revert to upland if artificial irrigation ceases;
- artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters;
- water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
- stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;
- groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters; and
- waste treatment systems." (85 FR 22250).

Areas meeting all three wetland parameters (i.e. hydrophytic vegetation, hydric soils and wetland hydrology) and are adjacent to other jurisdictional waters would be designated as USACE wetlands.

There are no wetland or non-wetland WOTUS within the Project Area. Therefore, the Project will not result in any permanent or temporary impacts to WOTUS.

State Lake/Streambed

There are no lake, river, stream or aquatic resources, stream-dependent wildlife resources or riparian habitats within the Project Area. Therefore, the Project will not result in any permanent or temporary impacts to jurisdictional waters of the State.

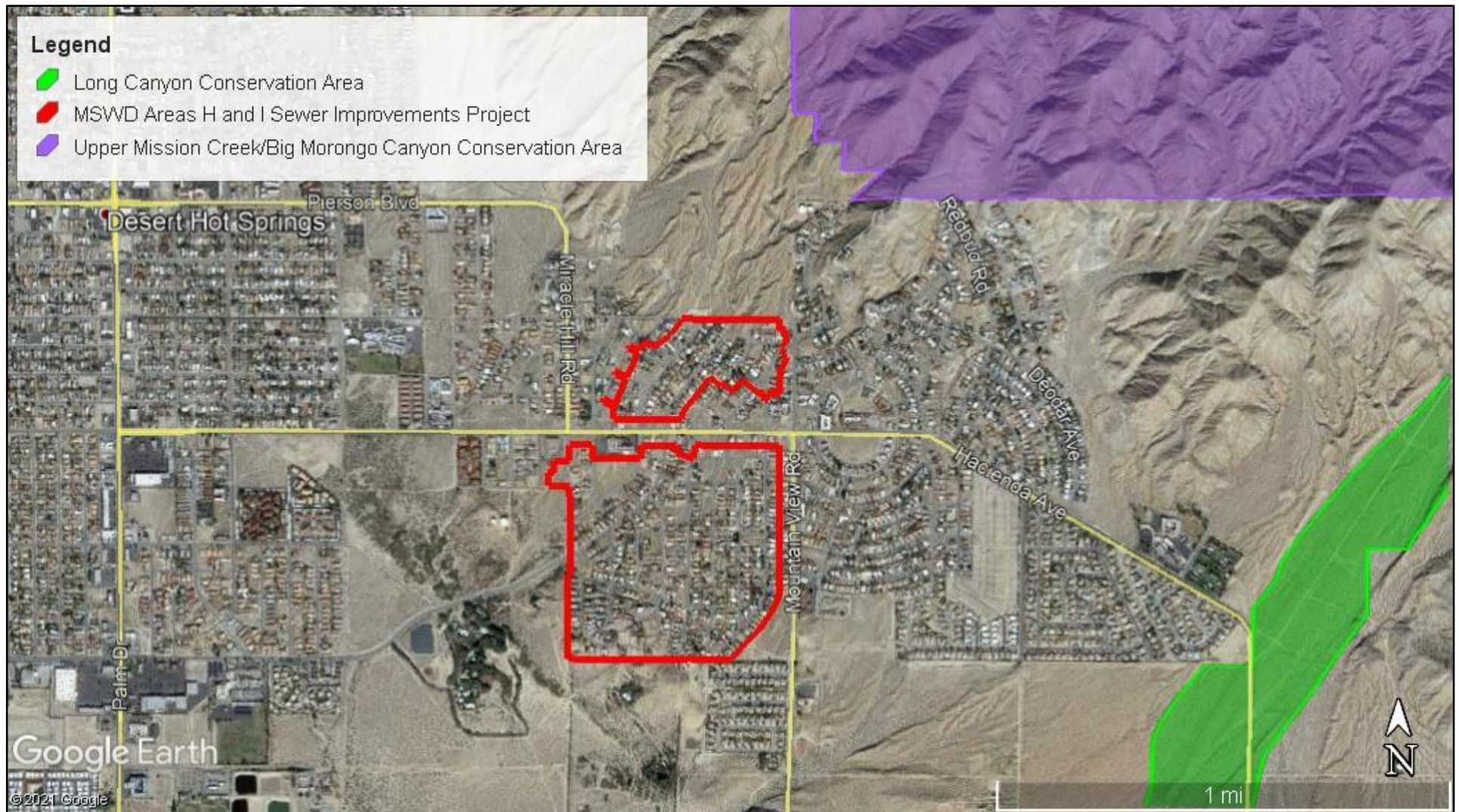
3.4 Land Use Designations

Coachella Valley MSHCP

The County of Riverside developed the CVMSHCP to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth. The CVMSHCP sets Conservation Goals and Objectives to ensure the conservation of the Covered Species and conserved natural communities in the MSHCP Reserve System. In addition to setting Conservation Goals and Objectives for the Covered Species and conserved natural

communities, the MSHCP has designated Core Habitat, Other Conserved Habitat, Essential Ecological Processes, and Biological Corridors and Linkages. The CVMSHCP area is divided into Conservation Areas based on a combination of ecological and jurisdictional factors. The CVMSHCP is intended to satisfy the legal requirements to authorize the “take” of species covered under the Plan during otherwise lawful activities, by providing for the conservation of the Covered Species.

The Project Area is outside any CVMSHCP Conservation Areas and the nearest Conservation Areas are approximately 0.4 mile northeast (Upper Mission Creek/Big Morongo Canyon Conservation Area) and 0.9 mile southeast (Long Canyon Conservation Area) of the Project Area, respectively (Figure 6). Therefore, no conservation or avoidance measures are expected, and the Project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.



SOURCE: Google Earth and CVMSHCP Conservation Area GIS Layer

FIGURE 6

4. Conclusions and Recommendations

4.1 Sensitive Biological Resources

No sensitive species were observed within the Project Area during the reconnaissance-level field survey and due to the environmental conditions on site, none are expected to occur. The Project Area is completely disturbed, consisting of paved streets and previously graded, compact bare ground (see attached Site Photos). Existing disturbances within the immediate Project Area primarily consist of residential development and paved roadways and habitat intactness within the surrounding undeveloped areas is highly fragmented. Due to the environmental conditions on site and the adjacent disturbances, the Project Area is likely not suitable to support any of the special status wildlife species that have been documented in the Project vicinity (within approximately 3 miles), including the federally listed as endangered Coachella Valley milk-vetch, the state and federally listed as threatened Mojave desert tortoise, the state listed as endangered and federally listed as threatened Coachella Valley fringe-toed lizard, and the California SSC BUOW.

The Project Area does not contain any sensitive habitats, including any USFWS designated Critical Habitat for any federally listed species, and the Project will not result in any loss or adverse modification of Critical Habitat. Additionally, the Project will not impact any MSHCP Conservation Areas. The Coachella Valley milk-vetch, Mojave desert tortoise, and Coachella Valley fringe-toed lizard are all CVMSHCP Covered Species (CVAG 2007). The CVMSHCP provides “take” authorization for Covered Species during otherwise lawful activities, by providing for the conservation of the Covered Species. The District and the City of Desert Hot Springs are both signatories to the CVMSHCP. Since the Coachella Valley milk-vetch, Mojave desert tortoise, and Coachella Valley fringe-toed lizard are all Covered Species under the CVMSHCP and the Project will not impact any MSHCP Conservation Areas or USFWS designated Critical Habitat for Coachella Valley milk-vetch, “take” authorization is provided for any potential Project-related impacts to these species.

Nesting Birds

There is habitat within the Project Area that is suitable to support nesting birds, including both vegetation and man-made structures. Most native bird species are protected from unlawful take by the MBTA (Appendix C). In December 2017, the Department of the Interior (DOI) issued a memorandum concluding that the MBTA’s prohibitions on take apply “[...] only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs” (DOI 2017). Then in April 2018, the USFWS issued a guidance memorandum that further clarified that the take of migratory birds or their active nests (i.e., with eggs or young) that is incidental to, and not the purpose of, an otherwise lawful activity does not constitute a violation of the MBTA (USFWS 2018).

However, the State of California provides additional protection for native bird species and their nests in the FGC (Appendix A). Bird nesting protections in the FGC include the following (Sections 3503, 3503.5, 3511, 3513 and 3800):

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), and Strigiformes (owls).
- Section 3511 prohibits the take or possession of Fully Protected birds.

- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.
- Section 3800 prohibits the take of any any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).

In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, the following is recommended:

- Ø To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist should conduct pre-construction nesting bird surveys prior to Project-related disturbance to suitable nesting areas to identify any active nests. If no active nests are found, no further action would be required. If an active nest is found, the biologist should set appropriate no-work buffers around the nest which would be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nest(s) and buffer zones should be field checked weekly by a qualified biological monitor. The approved no-work buffer zone should be clearly marked in the field, within which no disturbance activity should commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

4.2 Jurisdictional Waters

In addition to the BRA and focused botanical field survey, Jacobs also assessed the Project Area for the presence of any state and/or federal jurisdictional waters. The result of the jurisdictional waters assessment is that there are no wetland or non-wetland WOTUS or waters of the State potentially subject to regulation by the USACE under Section 404 of the CWA, the RWQCB under Section 401 of the CWA and/or Porter Cologne Water Quality Control Act, or the CDFW under Section 1602 of the California Fish and Game Code (FGC), respectively. Therefore, the Project will not impact any jurisdictional waters and no state or federal jurisdictional waters permitting will be required.

4.3 Land Use Designations

The Project is within the CVMSHCP boundary but is outside any CVMSHCP Conservation Areas. The nearest Conservation Areas are approximately 0.4 mile northeast (Upper Mission Creek/Big Morongo Canyon Conservation Area) and 0.9 mile southeast (Long Canyon Conservation Area) of the Project Area, respectively (Figure 6). The Project Proponent should be prepared to pay the MSHCP fees and restrict all Project related impacts to existing right-of-way and/or other areas outside of the Conservation Areas. No other conservation or avoidance measures are expected, and the Project as described, would be consistent with the Conservation Goals and Objectives set forth in the CVMSHCP.

5. References

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Appendix A. CNDDDB Species and Habitats Documented Within the *Seven Palms Valley* and *Desert Hot Springs* USGS 7.5- Minute Quadrangles

Special Status Species Occurrence Potential Analysis

Scientific Name	Common Name	Listing Status Federal/ State	Other Status	Habitat	Occurrence Potential
<i>Aquila chrysaetos</i>	golden eagle	None/ None	G5; S3; CDFW: FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	The Project Area is within an urban environment and there are no suitable nesting sites for this species within the Project Area. Occurrence potential is low.
<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley milk-vetch	Endangered/ None	G5T1; S1; CNPS: 1B.2	Sonoran desert scrub, desert dunes. Sandy flats, washes, outwash fans, sometimes on dunes. 35-695 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Astragalus tricarinatus</i>	triple-ribbed milk-vetch	Endangered/ None	G2; S2; CNPS: 1B.2	Joshua tree woodland, Sonoran desert scrub. Hot, rocky slopes in canyons and along edge of boulder-strewn desert washes, with <i>Larrea</i> and <i>Encelia</i> . 455-1585 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Athene cunicularia</i>	burrowing owl	None/ None	G4; S3; CDFW: SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	None/ None	G5T3T4; S3S4; CDFW: SSC	Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	None/ None	G4T3; S3; CNPS: 1B.2	Mojavean desert scrub, pinyon and juniper woodland, coastal scrub (alluvial fans). Sandy or gravelly places. 365-1830 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.

Scientific Name	Common Name	Listing Status Federal/ State	Other Status	Habitat	Occurrence Potential
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None/ None	G4; S2; CDFW: SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	The Project Area is within an urban environment and there are no suitable roosting sites for this species within the Project Area. Occurrence potential is low.
<i>Crotalus ruber</i>	red-diamond rattlesnake	None/ None	G4; S3; CDFW: SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
	Desert Fan Palm Oasis Woodland	None/ None	G3; S3.2		This habitat is absent from the Project Area.
<i>Dodecahema leptoceras</i>	slender-horned spineflower	Endangered/ Endangered	G1; S1; CNPS: 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include <i>Encelia</i> , <i>Dalea</i> , <i>Lepidospartum</i> , etc. Sandy soils. 200-765 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Furthermore, the Project Area is outside the current known range of this species. Occurrence potential is low.
<i>Eriastrum harwoodii</i>	Harwood's eriastrum	None/ None	G2; S2; CNPS: 1B.2	Desert dunes. Sandy soils. 15-1100m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Euphorbia arizonica</i>	Arizona spurge	None/ None	G5; S3; CNPS: 2B.3	Sonoran desert scrub. Sandy soils. 150-900 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Euphorbia misera</i>	cliff spurge	None/ None	G5; S2; CNPS: 2B.2	Coastal bluff scrub, coastal scrub, Mojavean desert scrub. Rocky sites. 3-430 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.

Scientific Name	Common Name	Listing Status Federal/ State	Other Status	Habitat	Occurrence Potential
<i>Falco mexicanus</i>	prairie falcon	None/ None	G5; S4; CDFW: WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	The Project Area is within an urban environment and there are no suitable nesting sites for this species within the Project Area. Occurrence potential is low.
<i>Gopherus agassizii</i>	desert tortoise	Threatened/ Threatened	G3; S2S3	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
<i>Linanthus maculatus</i> <i>ssp. maculatus</i>	Little San Bernardino Mtns. linanthus	None/ None	G2T2; S2; CNPS: 1B.2	Desert dunes, Sonoran desert scrub, Mojavean desert scrub, Joshua tree woodland. Sandy places. Usually in light-colored quartz sand; often in wash or bajada. 135-1220 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Mentzelia tricuspis</i>	spiny-hair blazing star	None/ None	G4; S2; CNPS: 2B.1	Mojavean desert scrub. Sandy or gravelly slopes and washes. 150-1280 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
	Mesquite Bosque	None/ None	G3; S2.1		This habitat is absent from the Project Area.
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	slender cottonheads	None/ None	G3G4T3?; S2; CNPS: 2B.2	Coastal dunes, desert dunes, Sonoran desert scrub. In dunes or sand. -45-745 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Neotoma lepida</i> <i>intermedia</i>	San Diego desert woodrat	None/ None	G5T3T4; S3S4; CDFW: SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.

Scientific Name	Common Name	Listing Status Federal/ State	Other Status	Habitat	Occurrence Potential
<i>Ovis canadensis nelsoni</i>	desert bighorn sheep	None/ None	G4T4; S3; CDFW: FP	Widely distributed from the White Mountains in Mono County, to the Chocolate Mountains in Imperial County. Open, rocky, steep areas with available water and herbaceous forage.	No suitable habitat for this species exists in the Project Area or immediate vicinity. Occurrence potential is low.
<i>Ovis canadensis nelsoni</i> pop. 2	Peninsular bighorn sheep DPS	Endangered/ Threatened	G4T3Q; S2; CNPS: FP	Eastern slopes of the Peninsular Ranges below 4,600 ft elevation. This DPS of the subspecies inhabits the Peninsular Ranges in southern California from the San Jacinto Mountains south to the US-Mexico International Border. Optimal habitat includes steep walled canyons and ridges bisected by rocky or sandy washes, with available water.	No suitable habitat for this species exists in the Project Area or immediate vicinity. Occurrence potential is low.
<i>Perognathus longimembris bangsi</i>	Palm Springs pocket mouse	None/ None	G5T2; S2; CDFW: SSC	Desert riparian, desert scrub, desert wash and sagebrush habitats. Most common in creosote-dominated desert scrub. Rarely found on rocky sites. Occurs in all canopy coverage classes.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
<i>Phrynosoma blainvillii</i>	coast horned lizard	None/ None	G3G4; S3S4; CDFW: SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.

Scientific Name	Common Name	Listing Status Federal/ State	Other Status	Habitat	Occurrence Potential
<i>Phrynosoma mcallii</i>	flat-tailed horned lizard	None/ None	G3; S2; CDFW: SSC	Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
<i>Selaginella eremophila</i>	desert spike-moss	None/ None	G4; S2S3; CNPS: 2B.2	Sonoran desert scrub, chaparral. Shaded sites, gravelly soils; crevices or among rocks. 225-1570 m.	The proposed Project footprint is within existing paved roads and previously graded, compact bare ground. Occurrence potential is low.
<i>Stenopelmatus cahullaensis</i>	Coachella Valley jerusalem cricket	None/ None	G1G2; S1S2	Inhabits a small segment of the sand and dune areas of the Coachella Valley, in the vicinity of Palm Springs. Found in the large, undulating dunes piled up at the north base of Mt. San Jacinto.	No suitable habitat for this species exists in the Project Area or immediate vicinity. Occurrence potential is low.
<i>Toxostoma lecontei</i>	Le Conte's thrasher	None/ None	G4; S3; CDFW: SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.
<i>Uma inornata</i>	Coachella Valley fringe-toed lizard	Threatened/ Endangered	G1Q; S1	Limited to sandy areas in the Coachella Valley, Riverside County. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely spaced desert shrubs.	No suitable habitat for this species exists in the Project Area or immediate vicinity. Occurrence potential is low.
<i>Vireo bellii pusillus</i>	least Bell's vireo	Endangered/ Endangered	G5T2; S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	No suitable habitat for this species exists in the Project Area or immediate vicinity. Occurrence potential is low.

Scientific Name	Common Name	Listing Status Federal/ State	Other Status	Habitat	Occurrence Potential
<i>Xerospermophilus tereticaudus chlorus</i>	Palm Springs round-tailed ground squirrel	None/ None	G5T2Q; S2; CDFW: SSC	Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall.	The Project Area is within an urban environment and due to existing human disturbances and poor habitat quality, this species not expected to occur within or adjacent the Project Area. Occurrence potential is low.

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Global Rankings (Species or Natural Community Level):

- G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
- G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 = Secure – Common; widespread and abundant.

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank) attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa*. The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

- S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
- S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
- S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
- S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
- S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

- 1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
- 1B = Plants rare, threatened, or endangered in California and elsewhere.
- 2A = Plants presumed extirpated in California, but common elsewhere.
- 2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
- 3 = Plants about which more information is needed; a review list.
- 4 = Plants of limited distribution; a watch list.

Threat Ranks:

- .1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- .3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Appendix B. Site Photos



Photo 1. Looking southeast along the proposed Project alignment from the intersection of Tunitas Road and Reposo Way. Northwest portion of the Project Area; north of Hacienda Avenue.



Photo 2. Looking southeast along the proposed Project alignment from the intersection of Suerte Way and Reposo Way. Northwest portion of the Project Area; north of Hacienda Avenue.



Photo 3. Looking north along the proposed Project alignment from the intersection of Agua Cayendo Road and Oro Loma Street. Northwest portion of the Project Area; north of Hacienda Avenue.



Photo 5. Looking south along the proposed Project alignment from the intersection of Cuando Way and Desert View Avenue. Northeast corner of the Project Area; north of Hacienda Avenue.



Photo 5. Project alignment near the northeastern portion of the Project Area; south of Hacienda Avenue.



Photo 6. Project alignment near the northeastern portion of the Project Area; south of Hacienda Avenue.



Photo 7. Project alignment near the eastern portion of the Project Area; south of Hacienda Avenue.



Photo 8. Project alignment near the southwest portion of the Project Area; south of Hacienda Avenue.

Appendix C. Regulatory Framework

Federal Regulations

Clean Water Act

The purpose of the Clean Water Act (CWA) of 1977 is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into “waters of the United States” (WOTUS) without a permit from the United States Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 Code of Federal Regulations [CFR] 328.3 7b). The U.S. Environmental Protection Agency (EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; in California this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

Navigable Waters Protection Rule

The USACE has authority to permit the discharge of dredged or fill material in WOTUS under Section 404 of the CWA. According to the EPA and the Department of the Army’s April 21, 2020 (effective June 22, 2020) “Navigable Waters Protection Rule: Definition of ‘Waters of the United States,’” WOTUS are defined as: “The territorial seas and traditional navigable waters; perennial and intermittent tributaries that contribute surface water flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters.” (85 FR 22250). The Navigable Waters Protection Rule specifically excludes from the definition of WOTUS:

- “Groundwater, including groundwater drained through subsurface drainage systems;
- ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools;
- diffuse stormwater runoff and directional sheet flow over upland;
- ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands, subject to certain limitations;
- prior converted cropland;
- artificially irrigated areas that would revert to upland if artificial irrigation ceases;
- artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters;
- water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;

- stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;
- groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters; and
- waste treatment systems.” (85 FR 22250).

Federal Endangered Species Act (ESA)

The federal Endangered Species Act (ESA) of 1973 protects plants and wildlife that are listed by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA (USA) prohibits the taking of endangered wildlife, where taking is defined as any effort to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 United States Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action will not jeopardize the continued existence of the species. The ESA specifies that the USFWS designate habitat for a species at the time of its listing in which are found the physical or biological features “essential to the conservation of the species,” or which may require “special Management consideration or protection...” (16 USC § 1533[a][3].2; 16 USC § 1532[a]). This designated Critical Habitat is then afforded the same protection under the ESA as individuals of the species itself, requiring issuance of an Incidental Take Permit prior to any activity that results in “the destruction or adverse modification of habitat determined to be critical” (16 USC § 1536[a][2]).

Interagency Consultation and Biological Assessments

Section 7 of ESA provides a means for authorizing the “take” of threatened or endangered species by federal agencies, and applies to actions that are conducted, permitted, or funded by a federal agency. The statute requires federal agencies to consult with the USFWS or National Marine Fisheries Service (NMFS), as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. If a Proposed Project “may affect” a listed species or destroy or modify critical habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the potential effect.

Habitat Conservation Plans

Section 10 of the federal ESA requires the acquisition of an Incidental Take Permit (ITP) from the USFWS by non-federal landowners for activities that might incidentally harm (or “take”) endangered or threatened wildlife on their land. To obtain a permit, an applicant must develop a Habitat Conservation Plan that is designed to offset any harmful impacts the proposed activity might have on the species.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661 to 667e et seq.) applies to any federal Project where any body of water is impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with the USFWS and the appropriate state wildlife agency.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (The Eagle Act) (1940), amended in 1962, was originally implemented for the protection of bald eagles (*Haliaeetus leucocephalus*). In 1962, Congress amended the Eagle Act to cover golden eagles (*Aquila chrysaetos*), a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. This act makes it illegal to import, export, take (molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or part thereof. The golden eagle, however, is accorded somewhat lighter protection under the Eagle Act than that of the bald eagle.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 implements international treaties between the United States and other nations created to protect migratory birds, any of their parts, eggs, and nests from activities, such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code (CFGC).

However, on December 22, 2017 the U.S. Department of the Interior (DOI) issued a memorandum concluding that MBTA's prohibitions on take apply "[...] only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs" (DOI 2017). Therefore, take of migratory birds or their active nests (i.e., with eggs or young) that is incidental to, and not the purpose of, an otherwise lawful activity does not constitute a violation of the MBTA. Then, on April 11, 2018, the USFWS issued a guidance memorandum that provided further clarification on their interpretation:

"We interpret the M-Opinion to mean that the MBTA's prohibitions on take apply when the purpose of an action is to take migratory birds, their eggs, or their nests. Conversely, the take of birds, eggs or nests occurring as the result of an activity, the purpose of which is not to take birds, eggs or nests, is not prohibited by the MBTA" (USFWS 2018).

Therefore, the MBTA is currently interpreted to prohibit the take of birds, nests or eggs when the *purpose* or *intent* of the action is to take birds, eggs or nests, not when the take of birds, eggs or nests is incidental to but not the intended purpose of an otherwise lawful action.

Executive Orders (EO)

Invasive Species – EO 13112 (1999): Issued on February 3, 1999, promotes the prevention and introduction of invasive species and provides for their control and minimizes the economic, ecological, and human health impacts that invasive species cause through the creation of the Invasive Species Council and Invasive Species Management Plan.

Migratory Bird – EO 13186 (2001): Issued on January 10, 2001, promotes the conservation of migratory birds and their habitats and directs federal agencies to implement the Migratory Bird Treaty Act. Protection and Enhancement of Environmental Quality—EO 11514 (1970a), issued on March 5, 1970, supports the purpose and policies of the National Environmental Policy Act (NEPA) and directs federal agencies to take measures to meet national environmental goals.

Migratory Bird Treaty Reform Act

The Migratory Bird Treaty Reform Act (Division E, Title I, Section 143 of the Consolidated Appropriations Act, 2005, PL 108–447) amends the Migratory Bird Treaty Act (16 U.S.C. Sections 703 to 712) such that nonnative birds or birds that have been introduced by humans to the United States or its territories are excluded from protection under the Act. It defines a native migratory bird as a species present in the United States and its territories as a result of natural biological or ecological processes. This list excluded two additional species commonly observed in the United States, the rock pigeon (*Columba livia*) and domestic goose (*Anser domesticus*).

Birds of Conservation Concern

Birds of Conservation Concern (BCC) is a USFWS list of bird species identified to have the highest conservation priority, and with the potential for becoming candidates for listing as federally threatened or endangered. The chief legal authority for BCC is the Fish and Wildlife Conservation Act of 1980 (FWCA). Other authorities include the FESA, the Fish and Wildlife Act of 1956, and the Department of the Interior U.S Code (16 U.S.C. § 701). The 1988 amendment to the FWCA (Public Law 100-653, Title VIII) requires the Secretary of the Interior, through the USFWS, to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973” (USFWS, 2008a).

State Regulations

California Fish and Game Code Sections 1600 through 1606 of the CFGC

This section requires that a Streambed Alteration Application be submitted to the CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the Department and the applicant is the Streambed Alteration Agreement. Often, Projects that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

California Endangered Species Act

The California Endangered Species Act (CESA) (Sections 2050 to 2085) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats by protecting “all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation.” Animal species are listed by the CDFW as threatened or endangered, and plants are listed as rare, threatened, or endangered. However, only those plant species listed as threatened or endangered receive protection under the California ESA.

CESA mandates that state agencies do not approve a Project that would jeopardize the continued existence of these species if reasonable and prudent alternatives are available that would avoid a jeopardy finding. There are no state agency consultation procedures under the California ESA. For Projects that would affect a species that is federally and State listed, compliance with ESA satisfies the California ESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the California ESA under Section 2080.1. For Projects that would result in take of a species that is state listed only, the Project sponsor must apply for a take permit, in accordance with Section 2081(b).

Fully Protected Species

Four sections of the California Fish and Game Code (CFGF) list 37 fully protected species (CFGF Sections 3511, 4700, 5050, and 5515). These sections prohibit take or possession "at any time" of the species listed, with few exceptions, and state that "no provision of this code or any other law will be construed to authorize the issuance of permits or licenses to 'take' the species," and that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession.

Bird Nesting Protections

Bird nesting protections (Sections 3503, 3503.5, 3511, 3513 and 3800) in the CFGF include the following:

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), and Strigiformes (owls).
- Section 3511 prohibits the take or possession of Fully protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.

Section 3800 prohibits the take of any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).

Native Plant Protection Act

The Native Plant Protect Act (NPPA) (1977) (CFGF Sections 1900-1913) was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Game Commission has the authority to designate native plants as endangered or rare and to protect endangered and rare plants from take. CESA (CFGF 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.

APPENDIX 3

APPENDIX 4a

**SUBSURFACE SOILS INVESTIGATION
AREAS H AND I SEWER
IMPROVEMENT PROJECT
DESERT HOT SPRINGS, CALIFORNIA**

**PROJECT NO. 63643.9
JUNE 19, 2020**

Prepared for:

TKE Engineering, Inc.
2305 Chicago Avenue
Riverside, California 92507

Attention: Ms. Yesenia Diaz

June 19, 2020

TKE Engineering, Inc.
2305 Chicago Avenue
Riverside, California 92507

Project No. 63643.9

Attention: Ms. Yesenia Diaz

Subject: Subsurface Soils Investigation, Areas H and I Sewer Improvement Project,
Desert Hot Springs, California.

Transmitted with this letter is our report entitled Subsurface Soils Investigation, Areas H and I Sewer Improvement Project, Desert Hot Springs, California.

This report was based upon a scope of services generally outlined in our proposal letter dated April 30, 2020 and other written and verbal communications with you.

The native materials should provide adequate support for the proposed water line within the project alignment. Additional geotechnical parameters for pipeline design and construction are provided within the attached report.

LOR Geotechnical Group, Inc.

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TKE Engineering, Inc.
June 19, 2020

Project No. 63643.9

INTRODUCTION

During May and June of 2020, a Subsurface Soils Investigation was performed by LOR Geotechnical Group, Inc., for the proposed Areas H and I sewer improvement project, located in the City of Desert Hot Springs, California. The purpose of this investigation was to evaluate the subsurface conditions encountered in our exploratory borings and to provide geotechnical design recommendations for the proposed waterline placement and backfill. The scope of our services included: 1) A subsurface field investigation; 2) Laboratory testing of selected soil samples obtained during the field investigation; 3) Development of geotechnical recommendations for the waterline construction; and, 4) Preparation of this report.

The findings of our investigation, as well as our conclusions and recommendations, are presented in the following sections of this report.

PROJECT CONSIDERATIONS

The project will consist of the construction/installation of approximately 25,000 linear feet of 8-inch sewer pipeline. The project area is generally located south of Desert View Avenue, on the east by Mountain View Road, on the west by Miracle Hill Road, and on the south by approximately one-half mile south of Hacienda Avenue. The project will utilize open cut trenching and jack and bore techniques.

The depth to the invert of the pipe will be approximately 8 feet deep in the open cut trench areas and approximately 12 to 15 feet deep under the existing drainage channel between Hidalgo Street and Quinta Way.

The approximate location of the project area within its regional setting is presented on Enclosure A-1, within Appendix A. The approximate location of our exploratory boring, is shown on the enclosed Site Map, Enclosure A-2, within Appendix A.

FIELD INVESTIGATION

Our field exploration program was conducted on May 22 and May 26, 2020 and consisted of drilling 15 exploratory borings with a mobile B-61 drill rig equipped with 8-inch diameter hollow stem augers. The borings were drilled to depths of approximately 12 to 26.4 feet below the existing ground surface. The approximate locations of the borings are presented on the enclosed Site Map, Enclosure A-2, within Appendix A.

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June 19, 2020

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Logs of the subsurface conditions encountered in the exploratory borings were created by a geologist from this firm. Relatively undisturbed and bulk samples were obtained within the borings at a maximum depth interval of 5 feet. The thickness of the asphalt concrete pavement, where present, was measured at each location. The condition of the existing pavement in the area of each boring was noted. Observations for each boring are presented on Enclosures B-1 through B-15, along with a detailed description of the field exploration program, within Appendix B.

The relatively undisturbed soil samples and subgrade soil samples were placed in sealed containers and returned to our geotechnical laboratory for further testing and evaluation.

LABORATORY TESTING PROGRAM

Selected soil samples obtained during the field investigation were subjected to laboratory testing to evaluate their physical and engineering properties. Laboratory testing included in-place moisture content and dry density, laboratory compaction characteristics, direct shear, sand equivalent, and soil corrosion. A detailed description of our geotechnical laboratory testing program and our test results are presented within Appendix C.

Corrosion testing and analysis was conducted on select samples by our licensed sub-consultant, HDR, Inc. The results of their testing and analysis are presented in Appendix D.

SUBSURFACE CONDITIONS

Data from our exploratory borings indicates that the project area is underlain by units of silty sand with gravel, poorly graded sand with gravel, and well graded sand with gravel. These units were typically brown to tan in color and dry to damp. Based on our equivalent SPT blow counts and in-place density test data, the native materials below the proposed waterline invert elevations were typically in a medium dense to very dense in-place state.

Groundwater was encountered within two of our exploratory borings. Boring B-8 encountered groundwater as a hot spring at a depth of approximately 7 feet, and Boring B-10 encountered groundwater at a depth of approximately 24 feet.

We reviewed readily available well data from the California Department of Water Resources online water data library. The nearest well to the site is State Well Number 02S05E31H001S, located approximately 0.5 miles (0.84 kilometers) to the west.

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Data for this well was available from December 2011 through December of 2019. Groundwater measurements fluctuated from a high of approximately 8 feet in 2011 and a low of approximately 12 feet in 2019.

CONCLUSIONS

The subsurface conditions encountered in our exploratory borings are indicative of the locations explored. It is not to be construed that these conditions are present the same throughout the project alignment.

Recommendations for shoring design are based on the properties of the native material being exposed in excavation walls as obtained during this investigation. The compaction characteristics and shear strength properties of any existing trench backfills is unknown. Typically, excavations exposing trench backfill are considered unstable.

On the basis of our limited field investigation and testing program, it is the opinion of LOR Geotechnical Group, Inc., that placement of the sewer pipeline via jack and bore and open trench replacement, are all feasible from a soil engineering standpoint, provided that the following recommendations are incorporated into design and implemented during construction.

Because of the negligible additional load imposed to the ground by the improvements, the native materials should provide adequate support for the proposed waterline within the project alignment. Details for pipe support are provided in the Preparation of the Pipeline Areas section of this report.

At the time of our investigation groundwater was found at or above the proposed invert elevations in our boring locations, seasonal climatic changes can effect the elevation of the groundwater. Hence, precautions, including localized dewatering and safe slope excavation inclinations, may be necessary especially if the construction of the project takes place following a rainy season.

RECOMMENDATIONS

Dewatering

Groundwater was found in the area of our boring B-8 at or near the proposed invert, groundwater levels may be shallower following periods of heavy rain.

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If the construction of the proposed pipeline occurs following a rainy season, groundwater may be a localized nuisance, and it may require dewatering methods. A variety of methods exists for controlling subsurface water. These methods typically utilize barriers, liners, wells, and/or drains. Barriers and liners are typically employed to restrict or reduce the surface flow of water, while wells and drains tend to lower the water table to redirect the water flow. The final solution should be determined by a qualified hydraulic engineer experienced in dewatering methods in similar environments.

Jack and Bore

The proposed jack and bore portion of the project is considered feasible from a geotechnical standpoint provided the recommendations contained within are adhered to. Our data suggests favorable soil conditions to perform such operations are present.

Trench Excavation

Standard trenching equipment should be suitable for the proposed excavation of the sewer pipeline. Trench excavation safety and precautions, including safe slope excavation inclinations, should be implemented and are the responsibility of the contractor.

Following the California Occupational Safety and Health Act (CAL-OSHA) requirements, excavations 5 feet deep and greater should be sloped or shored. All excavations and shoring should conform to CAL-OSHA requirements.

Short-term excavations of 5 feet deep and greater shall conform to Title 8 of the California Code of Regulations, Construction Safety Orders, Section 1504 and 1539 through 1547. Based on our exploratory borings, it appears that Type C soil is the predominant type of soil material on the project and all short-term excavations should be based on this type of soil material. In accordance with Title 8 of the California Code of Regulations, simple slope excavations up to 20 feet in depth made in Type C soil material should have maximum allowable slopes of 1.5 horizontal to 1 vertical. However, due to the relatively dry and granular state of the natural soils, extreme care should be taken in the construction and maintenance of short term excavations within such soils as they tend to be less stable. Deviation from the standard short term slopes are permitted using option 4, Design by a Registered Professional Engineer (Section 1541.1).

It should be stated that depending on the proximity of the pipeline to any other utility trenches, short-term excavations may expose the existing old trench backfill materials.

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The compaction characteristics and shear strength properties of the existing trench backfills is unknown. Typically, excavations exposing trench backfill are considered unstable.

The construction and maintenance of short-term excavations is the responsibility of the contractor and should be a consideration of his methods of operation and the actual soil conditions encountered.

Shoring Design Parameters

General: Shoring placed below grade that is restrained against free movement at the top should be designed to resist a lateral earth pressure between active and at rest conditions. For this condition we recommend a lateral earth pressure, trapezoidal distribution of $15H$ pounds per square foot (psf).

Additional surcharge loads (i.e. equipment, excavation spoil, etc.) placed within a horizontal distance equal to the height of the excavation should be added to the above recommended pressure at a rate of 0.28 times the surcharge load.

In addition, if the excavation walls are composed of any trench backfill materials associated with existing utilities, the in-place density and shear strength properties of the backfills should be investigated to verify the suitability of the preceding shoring parameters.

Any isolated loads (O_p) or line load (Q_L) from adjacent vehicular loading will impose additional burden on the shoring and should be completed as shown on Enclosure E-1, with Appendix E.

Preparation of the Pipeline Areas

Upon excavation of the proposed pipeline areas to the planned line and grade, observations and in-place density testing should be conducted to ensure that no soft/loose materials are present. The materials to be exposed at the bottom of the excavation should be observed to assess if they require stabilization. Stabilization is not anticipated to be required. However, if stabilization is required, consideration should be given to the placement of rock at the bottom of the excavations to achieve a working platform that facilitates the installation of the sewer pipe and placement of bedding and backfill materials. The crushed rock should be sized in accordance with Section 200-1.1 and 1.2 of the Standard Specifications for Public Works Construction "Greenbook".

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To assist in mitigating yielding subgrade conditions, crushed rock materials can be complemented by the placement of continuous sheets of geogrid under the rock.

After placement of the sewer pipe, backfill materials should then be placed around the pipe in accordance with the recommendations given in the Engineered Compacted Fill section of this report.

Engineered Compacted Fill

Based upon laboratory results of preliminary sampling, the majority of the materials encountered and tested resulted in a sand equivalent above 30 and are therefore considered suitable for bedding sand around the pipeline. However, minor amounts of materials were encountered and tested to have a sand equivalent below 30. These materials are not considered suitable as bedding sand around the pipeline. Bedding material should consist of sand, gravel, or crushed aggregate less than 1 inch in diameter and having a sand equivalent of not less than 30 or as specified by the pipe manufacturer.

The site materials are generally suitable for use as trench backfill above the bedding material. However, the majority of the soils to be excavated are dry and will require moisture conditioning to achieve the desired optimum moisture content prior to using as engineered compacted fill. Although not anticipated, rock or similar irreducible material with a maximum dimension greater than 6 inches should not be buried or placed in fills without prior approval by the geotechnical engineer.

Import fill, if required, should be inorganic, non-expansive, granular soils free from rocks or lumps greater than 6 inches in maximum dimension. Sources for import fill should be approved by the geotechnical engineer prior to their use.

Care should be exercised so that the waterline pipe is not damaged or displaced during densification of the backfill. Backfill materials should be free from organic material, trash, debris, and other objectionable materials. Backfill should be mechanically compacted to at least 90 percent relative compaction (ASTM D 1557) at or near optimum moisture content. The upper 12 inches of subgrade materials that are to be paved should be compacted to at least 95 percent relative compaction (ASTM D 1557).

In addition, due to potentially localized high groundwater conditions within the project area, the project civil engineer should verify that the hydrostatic uplift force is balanced by the soil overburden and weight of the pipe in order to ensure that the improvements will not float.

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The vertical hydrostatic uplift force, U, due to the water table can be calculated as:

$$U = \delta/4 D^2 \bar{\alpha}_{\text{water}}$$

where: U = lb/linear ft of pipe

D = OD of pipe, ft

$\bar{\alpha}_{\text{water}}$ = unit weight of water = 62.4 lb/ft³

Corrosion Protection

The results from the soil corrosivity testing, analysis, and recommendations completed by HDR, Inc., are presented within Appendix D.

LIMITATIONS

This report contains geotechnical conclusions and recommendations developed solely for use by TKE Engineering, Inc. and their sub-consultants, for the purposes described earlier. It may not contain sufficient information for other uses or the purposes of other parties. The contents should not be extrapolated to other areas or used for other facilities without consulting LOR Geotechnical Group, Inc.

The recommendations are based on interpretations of the subsurface conditions concluded from information gained from subsurface explorations. The interpretations may differ from actual subsurface conditions, which can vary horizontally and vertically across the site. If conditions are encountered during the construction of the project, which differ significantly from those presented in this report, this firm should be notified immediately so we may assess the impact to the recommendations provided. Due to possible subsurface variations, all aspects of field construction addressed in this report should be observed and tested by the project geotechnical consultant.

The report was prepared using generally accepted geotechnical engineering practices under the direction of a state licensed geotechnical engineer. No warranty, expressed or implied, is made as to conclusions and professional advice included in this report. Any persons using this report for bidding or construction purposes should perform such independent investigations as deemed necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on this project.

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June 19, 2020

Project No. 63643.9

TIME LIMITATIONS

The findings of this report are valid as of this date. Changes in the condition of a property can, however, occur with the passage of time, whether they are due to natural processes or the work of man on this or adjacent properties. In addition, changes in the Standards-of-Practice and/or Governmental Codes may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond our control. Therefore, this report should not be relied upon after a significant amount of time without a review by LOR Geotechnical Group, Inc., verifying the suitability of the conclusions and recommendations.

CLOSURE

It has been a pleasure to assist you with this project. We look forward to being of further assistance to you as construction begins. Should conditions be encountered during construction that appear to be different than indicated by this report, please contact this office immediately in order that we might evaluate their effect.

Should you have any questions regarding this report, please do not hesitate to contact this office at your convenience.

Respectfully submitted,
LOR Geotechnical Group, Inc.



John P. Leuer, GE 2030
President



AAT:JPL/ss

Distribution: Addressee (4) and via email: ydiaz@tkeengineering.com

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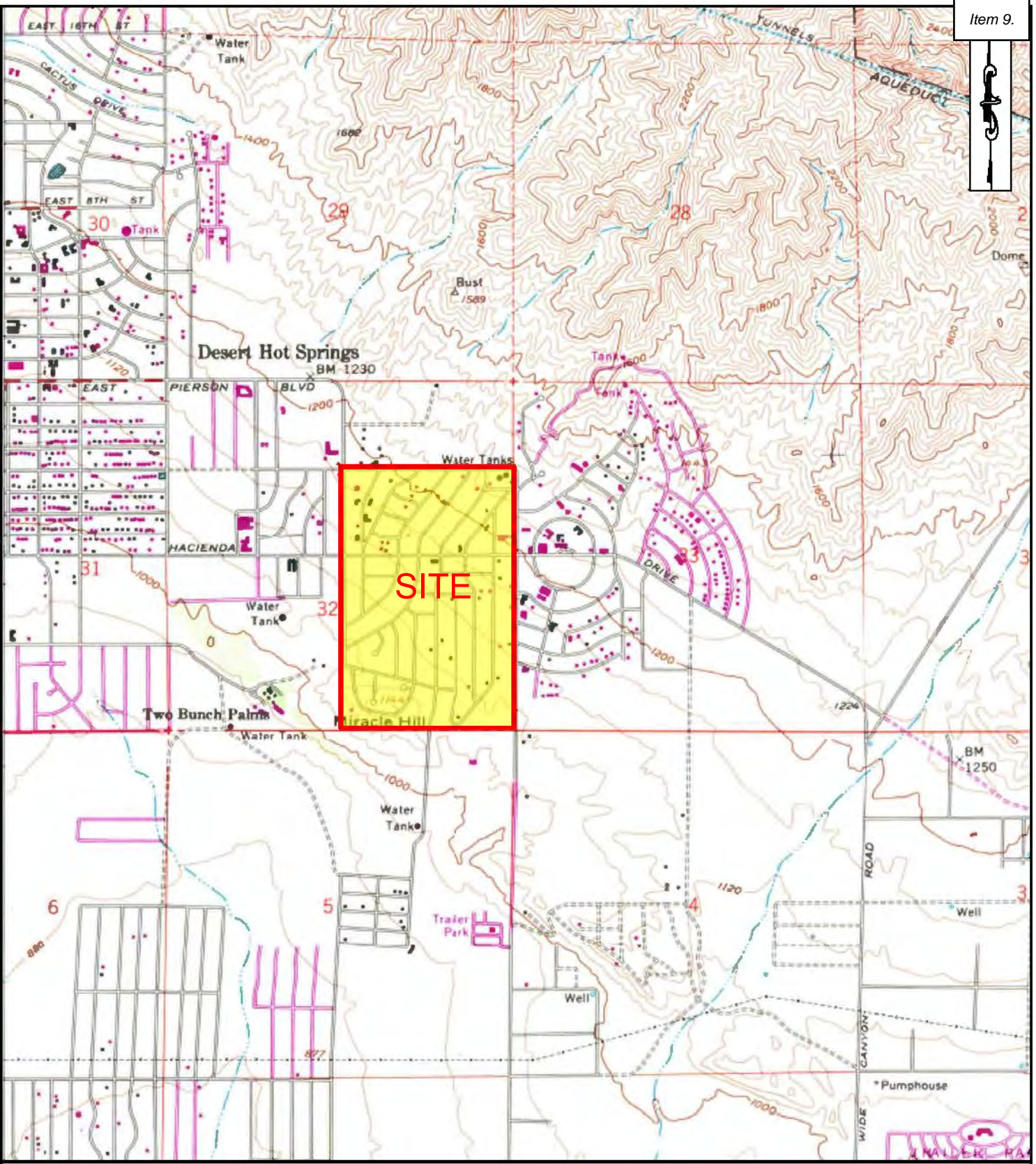
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APPENDIX A

Index Map and Site Map



INDEX MAP

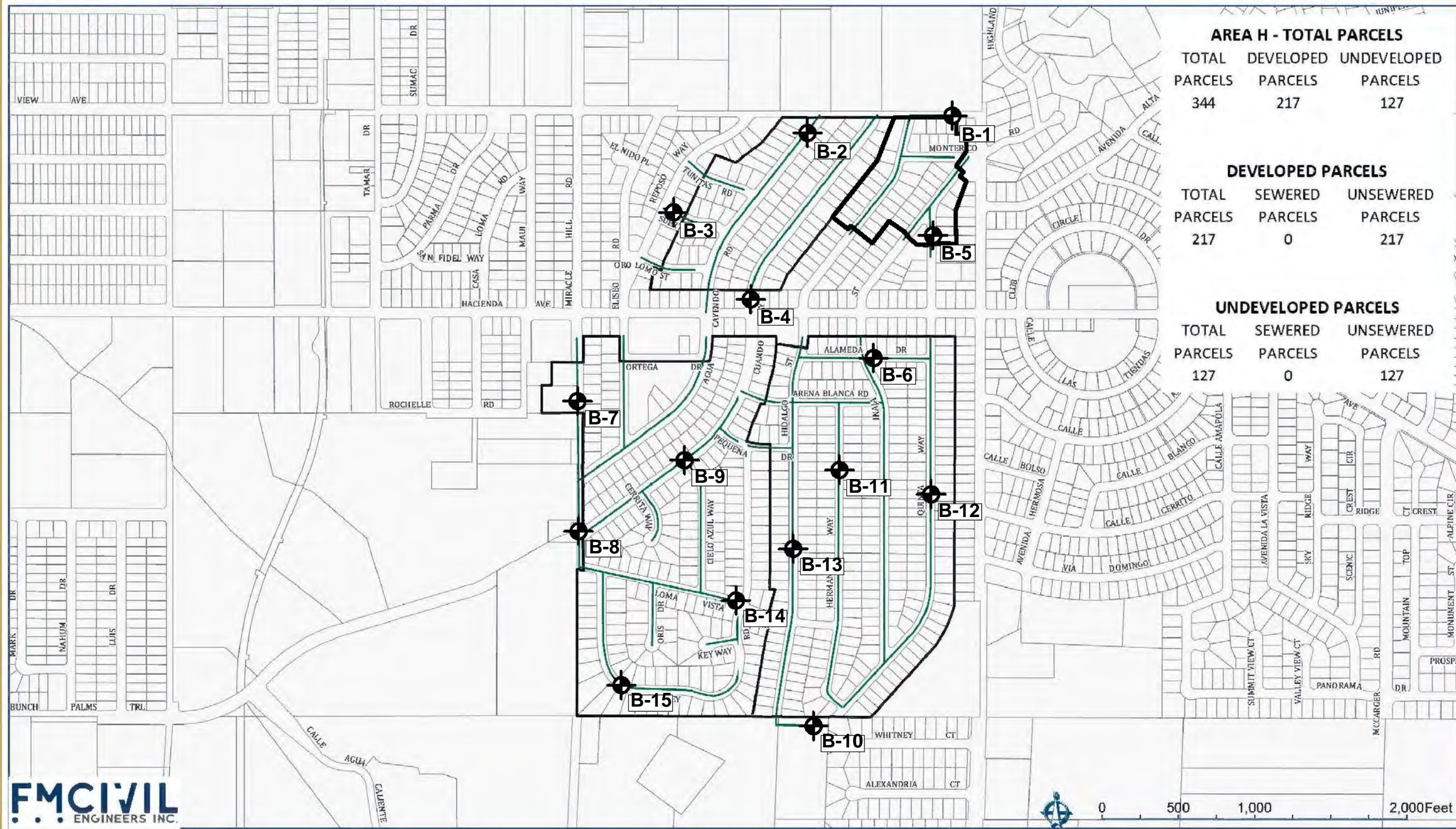
PROJECT: AREAS H & I SEWER IMPROVEMENTS, DESERT HOT SPRINGS, CALIFORNIA	PROJECT NO: 63643.9
CLIENT: TKE ENGINEERING INC.	ENCLOSURE: A-1
LOR Geotechnical Group, Inc.	DATE: JUNE 2020
	SCALE: 1" = 614'

Legend

(Locations Approximate)

Map Symbols

⊕ B-15 - Exploratory Boring Location



AREA H - TOTAL PARCELS

TOTAL PARCELS	DEVELOPED PARCELS	UNDEVELOPED PARCELS
344	217	127

DEVELOPED PARCELS

TOTAL PARCELS	SEWERED PARCELS	UNSEWERED PARCELS
217	0	217

UNDEVELOPED PARCELS

TOTAL PARCELS	SEWERED PARCELS	UNSEWERED PARCELS
127	0	127

SITE MAP

PROJECT NO:	63643.9
ENCLOSURE:	A-2
DATE:	JUNE 2020
SCALE:	1" = 7'
PROJECT:	AREAS H & I SEWER IMPROVEMENTS, DESERT HOT SPRINGS, CALIFORNIA
CLIENT:	TKE ENGINEERING INC.
CLIENT:	LOR Geotechnical Group, Inc.



AREA H SEWER IMPROVEMENTS
MISSION SPRINGS WATER DISTRICT

- PROPOSED MAHOLE
- PROPOSED SEWER
- EXISTING SEWER
- CONNECTION POINT
- ▭ AREA BOUNDARY
- ▭ PARCEL LINE
- ▭ CITY BOUNDARY



APPENDIX B

Field Investigation Program and Boring Logs

APPENDIX B **FIELD INVESTIGATION**

Subsurface Exploration

The site was investigated on May 22 and May 26 of 2020 and consisted of advancing 15 exploratory borings to depths of approximately 12 and 26.42 feet below the existing ground surface. The approximate locations of the borings are shown on Enclosure A-2, within Appendix A.

The boring exploration was conducted using a track mounted Mobile B-61 drill rig equipped with 8-inch diameter hollow stem augers. The soils were continuously logged by our geologist who inspected the site, created detailed logs of the borings, obtained undisturbed, as well as disturbed, soil samples for evaluation and testing, and classified the soils by visual examination in accordance with the Unified Soil Classification System.

Relatively undisturbed samples of the subsoils were obtained within the borings at a maximum interval of 5 feet. The samples were recovered by using a California split barrel sampler of 2.40-inch inside diameter and 3.25-inch outside diameter. The samplers were driven by a 140-pound automatic trip hammer dropped from a height of 30 inches. The number of hammer blows required to drive the sampler into the ground the final 12 inches were recorded and further converted to an equivalent SPT-value. Factors such as efficiency of the automatic trip hammer used during this investigation (80%), inner diameter of the hollow-stem auger (3.75 inches), and rod lengths at the test depth were considered for further computing of equivalent SPT-values corrected for field procedures ($\approx N_{60}$) which are included in the boring logs. The soil samples were retained in brass sample rings of 2.41 inches in diameter and 1.00 inch in height, and placed in sealed plastic containers. Disturbed soil samples were obtained at selected levels within the borings and placed in sealed containers for transport to our geotechnical laboratory.

All samples obtained were taken to our geotechnical laboratory for storage and testing. Detailed logs of the borings and cores are presented on the attached Boring Logs, Enclosures B-1 through B-15. A Boring Log Legend and Soil Classification Chart are presented on Enclosures B-i and B-ii, respectively.

B

CONSISTENCY OF SOIL

SAMPLE KEY

SANDS

SPT BLOWS

CONSISTENCY

0-4	Very Loose
4-10	Loose
10-30	Medium Dense
30-50	Dense
Over 50	Very Dense

Symbol

Description



INDICATES CALIFORNIA
SPLIT SPOON SOIL
SAMPLE

INDICATES BULK SAMPLE

INDICATES SAND CONE
OR NUCLEAR DENSITY
TEST

INDICATES STANDARD
PENETRATION TEST (SPT)
SOIL SAMPLE

COHESIVE SOILS

SPT BLOWS

CONSISTENCY

0-2	Very Soft
2-4	Soft
4-8	Medium
8-15	Stiff
15-30	Very Stiff
30-60	Hard
Over 60	Very Hard

TYPES OF LABORATORY TESTS

- 1 Atterberg Limits
- 2 Consolidation
- 3 Direct Shear (undisturbed or remolded)
- 4 Expansion Index
- 5 Hydrometer
- 6 Organic Content
- 7 Proctor (4", 6", or Cal216)
- 8 R-value
- 9 Sand Equivalent
- 10 Sieve Analysis
- 11 Soluble Sulfate Content
- 12 Swell
- 13 Wash 200 Sieve

BORING LOG LEGEND

PROJECT: AREAS H & I SEWER IMPROVEMENTS, DESERT HOT SPRINGS, CA	PROJECT NO.: 63643.9
CLIENT: TKE ENGINEERING, INC.	ENCLOSURE: B-i
LOR Geotechnical Group, Inc.	DATE: JUNE 2020
	618

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS <small>(LITTLE OR NO FINES)</small>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		SM	SILTY SANDS, SAND - SILT MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
		LIQUID LIMIT LESS THAN 50		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
		LIQUID LIMIT LESS THAN 50		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
		LIQUID LIMIT GREATER THAN 50		CH	INORGANIC CLAYS OF HIGH PLASTICITY
		LIQUID LIMIT GREATER THAN 50		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

PARTICLE SIZE LIMITS

BOULDERS	COBBLES	GRAVEL		SAND			SILT OR CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE	
12"	3"	3/4"	No. 4	No. 10	No. 40	200	

(U.S. STANDARD SIEVE SIZE)

SOIL CLASSIFICATION CHART

PROJECT	AREAS H & I SEWER IMPROVEMENTS, DESERT HOT SPRINGS, CA	PROJECT NO.	63643.9
CLIENT:	TKE ENGINEERING, INC.	ENCLOSURE:	B-ii
LOR Geotechnical Group, Inc.		DATE:	JUNE 2020

LOG OF BORING B-1

TEST DATA							DESCRIPTION
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	
0							@ 0 feet, ASPHALT CONCRETE: 0.33' thick, fair condition. @ 0.33 feet, AGGREGATE BASE, 0.67' thick.
		7				SM	@ 1 foot, SILTY SAND with GRAVEL, approximately 15% gravel to 1/2", 20% coarse grained sand, 20% medium grained sand, 30% fine grained sand, 15% silty fines, yellow brown, dry.
5	47	3, 9	1.6	130.0			@ 5 feet, increase in gravel to 2".
10	77 for 10"		1.0	117.6		SW	@ 10 feet, WELL GRADED SAND with GRAVEL, approximately 20% gravel to 3", 20% coarse grained sand, 20% medium grained sand, 35% fine grained sand, 5% silty fines, tan, dry, difficult drilling.
15	78		2.1	120.0			END OF BORING @ 16.5' No groundwater No bedrock
20							

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
	HOLE DIA.: 8"	ENCLOSURE:	B-1

LOG OF BORING B-2

TEST DATA

DEPTH IN FEET	TEST DATA						LITHOLOGY	U.S.C.S.	DESCRIPTION
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE				
0								SM	@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition. @ 0.25 feet, SILTY SAND, trace gravel to 1/2", 25% coarse grained sand, 30% medium grained sand, 30% fine grained sand, 15% silty fines, brown, damp.
5	31	9	5.4	120.7					@ 5 feet, slight increase in gravel percentage and size.
7								SP SM	@ 7 feet, POORLY GRADED SAND with SILT, approximately 10% coarse grained sand, 35% medium grained sand, 45% fine grained sand, 10% silty fines, tan, dry.
10	73 for 11"		2.2	125.2					@ 10 feet, trace gravel to 1/2", slightly cemented, white.
15	82 for 9"		6.5	107.3					END OF BORING @ 15.75'
20									No groundwater No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.: 8"	ENCLOSURE:

LOG OF BORING B-3

TEST DATA

DEPTH IN FEET	TEST DATA						U.S.C.S.	DESCRIPTION
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY		
0							SW	@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition. @ 0.25 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 3/4", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, tan, dry.
5	25	9	1.9	113.8				
10	36		3.0	126.2			SM	@ 10 feet, SILTY SAND, approximately 10% gravel to 1/2", 20% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 15% silty fines, brown, damp.
15	71		1.1	128.9			SW	@ 15 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 3/4", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, tan, dry. END OF BORING @ 16.5'
20								No groundwater No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.	DATE DRILLED:	May 22, 2020	
	EQUIPMENT:	Mobile B-61	
	HOLE DIA.: 8"	ENCLOSURE:	B-3

LOG OF BORING B-4

TEST DATA						
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SAMPLE TYPE	LITHOLOGY
0					SW	U.S.C.S.
5	30	9	4.4	129.8	█	█
10	80 for 11"	3	2.9	122.2	█	█
15	81 for 11"		1.8	119.7	█	█
20						

DESCRIPTION

@ 0 feet, ASPHALT CONCRETE; 0.33' thick, fair condition.
 @ 0.33 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 1/2", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, brown, dry.

@ 15 feet, increase in gravel to 1"

END OF BORING @ 16.42'

No groundwater
 No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.:	8" ENCLOSURE: B-4

LOR GEOTECHNICAL GROUP INC.

LOG OF BORING B-5

TEST DATA						
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SAMPLE TYPE	LITHOLOGY
0						U.S.C.S.
5	56	9	2.4	126.2	█	SW
10	83		2.9	123.4	█	
15	45		2.3	123.2	█	
20						

DESCRIPTION

@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition.
 @ 0.25 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 3", 20% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, white, dry.

END OF BORING @ 16.5'

No groundwater
 No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.:	8" ENCLOSURE: B-5

LOR GEOTECHNICAL GROUP INC.

LOG OF BORING B-6

TEST DATA

DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S.
0							
5	19	9	3.2	125.6			
10	80		1.2	123.8			
15	68		2.0	128.0			
20							

DESCRIPTION

@ 0 feet, ASPHALT CONCRETE: 0.35' thick, fair condition.
 @ 0.35 feet, SILTY SAND, trace gravel to 1/2", approximately 25% coarse grained sand, 30% medium grained sand, 40% fine grained sand, 5% silty fines, brown, dry.

@ 10 feet, WELL GRADED SAND with GRAVEL, approximately 20% gravel to 3/4", 25% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 5% silty fines, brown, dry.

END OF BORING @ 16.5'

No groundwater
 No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
	HOLE DIA.: 8"	ENCLOSURE:	B-6

LOG OF BORING B-7

TEST DATA

DEPTH IN FEET	TEST DATA						U.S.C.S.	DESCRIPTION
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY		
0								@ 0 feet, ASPHALT CONCRETE: 0.30' thick, fair condition. @ 0.30 feet, SILTY SAND, approximately 5% gravel to 1/2", 20% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 20% silty fines, brown, damp.
5	40	9	6.4	129.6			SM	
10	52		2.5	124.0			SW	@ 10 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 1", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, white, dry.
15	60		2.5	122.6				
20								END OF BORING @ 16.5' No groundwater No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.: 8"	ENCLOSURE:

LOG OF BORING B-8

TEST DATA

DEPTH IN FEET	TEST DATA						U.S.C.S.	DESCRIPTION
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY		
0							SW	@ 0 feet, ASPHALT CONCRETE: 0.15' thick, fair condition. @ 0.15 feet, WELL GRADED SAND with GRAVEL, approximately 25% gravel to 2", 20% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 5% silty fines, brown, dry.
5	22	3, 9	10.6	121.7				@ 5 feet, becomes moist. @ 7 feet, groundwater (hot).
10	81 for 11"		8.2	129.8				@ 10 feet, very difficult to drill, cobbles, wet.
15								END OF BORING @ 12' due to refusal Groundwater @ 7' No bedrock
20								

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.	DATE DRILLED:	May 22, 2020	
	EQUIPMENT:	Mobile B-61	
	HOLE DIA.: 8"	ENCLOSURE:	B-8

LOG OF BORING B-9

TEST DATA

DEPTH IN FEET	TEST DATA						U.S.C.S.	DESCRIPTION
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY		
0							SM	@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition. @ 0.25 feet, SILTY SAND with GRAVEL, approximately 15% gravel to 1", 20% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 15% silty fines, red brown, damp.
5	32	9	1.8				SW	@ 5 feet, WELL GRADED SAND with GRAVEL, approximately 20% gravel to 1", 20% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 15% silty fines, red brown, damp.
10	57		3.3					
15	63		1.7					
20								END OF BORING @ 16.5' No groundwater No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 22, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.: 8"	ENCLOSURE:

LOG OF BORING B-10

TEST DATA

DEPTH IN FEET	TEST DATA					LITHOLOGY	U.S.C.S.
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE		
0							
5	29	7	5.6	125.3			
10	55	3	2.6	122.1			
15	43		6.5	118.3			
20	64		1.9	115.7			
25	89 for 11"		18.8	109.7			
30							

DESCRIPTION

@ 0 feet, POORLY GRADED SAND with SILT, approximately 5% coarse grained sand, 15% medium grained sand, 70% fine grained sand, 10% silty fines, gray, dry.

@ 3 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 1", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, brown, damp.

@ 10 feet, slightly coarser grained, dry.

@ 15 feet, gravel to 3".

@ 19 feet, refusal on cobbles, boring moved 10' east.

@ 24 feet, groundwater.

@ 25 feet, POORLY GRADED SAND, approximately 5% coarse grained sand, 10% medium grained sand, 80% fine grained sand, 5% silty fines, gray, wet.

END OF BORING @ 26.42'

Groundwater @ 24'
No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 26, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.: 8"	ENCLOSURE:

LOG OF BORING B-11

TEST DATA

DEPTH IN FEET	TEST DATA						U.S.C.S.	DESCRIPTION
	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY		
0							SP	@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition. @ 0.25 feet, POOLY GRADED SAND, trace gravel to 1/2", 5% coarse grained sand, 15% medium grained sand, 75% fine grained sand, 5% silty fines, brown, damp.
5	22	3, 9	2.1	115.7			SW	@ 5 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 2", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, brown, damp.
10	36		3.5	121.9				@ 10 feet, slight decrease in gravel percentage.
15	53		3.6	123.0				
20								END OF BORING @ 16.5' No groundwater No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 26, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.: 8"	ENCLOSURE:

LOG OF BORING B-12

TEST DATA						
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SAMPLE TYPE	LITHOLOGY
0						U.S.C.S.
5	27	9	1.9		█	SW
10	32		0.2	128.5	█	
15	57		1.3	122.9	█	
20						

DESCRIPTION

@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition.
 @ 0.25 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 1.5", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, gray, dry.

@ 5 feet, rings disturbed.

END OF BORING @ 16.5'

No groundwater
 No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
		DATE DRILLED:	May 26, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.:	8" ENCLOSURE: B-12

LOR GEOTECHNICAL GROUP INC.

LOG OF BORING B-13

TEST DATA						
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SAMPLE TYPE	LITHOLOGY
0						U.S.C.S.
5	26	9	1.1	113.2	█	SW
10	33		2.4	122.8	█	
15	61		4.0	124.4	█	SM
20						

DESCRIPTION

@ 0 feet, ASPHALT CONCRETE: 0.25' thick, fair condition.
 @ 0.25 feet, WELL GRADED SAND with GRAVEL, approximately 15 gravel to 1", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, brown, damp.

@ 10 feet, becomes dry.

@ 15 feet, SILTY SAND, approximately 5% gravel to 1", 25% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 20% silty fines, red brown, dry.
 END OF BORING @ 16'

No groundwater
 No bedrock

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
		DATE DRILLED:	May 26, 2020
		EQUIPMENT:	Mobile B-61
		HOLE DIA.:	8" ENCLOSURE: B-13

LOR GEOTECHNICAL GROUP INC.

LOG OF BORING B-14

TEST DATA							
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S.
0							
							DESCRIPTION
							@ 0 feet, ASPHALT CONCRETE: 0.33' thick, fair condition. @ 0.33 feet, AGGREGATE BASE, 0.5' thick. @ 0.83 feet, WELL GRADED SAND with GRAVEL, approximately 15% gravel to 1", 25% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 5% silty fines, brown, dry.
5	71	9	2.2	130.1			
10	80		2.9	115.2			@ 10 feet, slight increase in gravel percentage.
15	77 for 11"		2.5	122.4			
							END OF BORING @ 15.92'
							No groundwater No bedrock
20							

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	May 26, 2020
		EQUIPMENT:	Mobile B-61
	HOLE DIA.: 8"	ENCLOSURE:	B-14

LOG OF BORING B-15

TEST DATA							DESCRIPTION
DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	
0							@ 0 feet, ASPHALT CONCRETE: 0.33' thick, fair condition. @ 0.33 feet, POORLY GRADED SAND, approximately 5% coarse grained sand, 15% medium grained sand, 75% fine grained sand, 5% silty fines, gray, dry.
5	36	9	3.5	112.9			@ 7 feet, some cobbles, very difficult to drill to 9'.
10	55		0.9	100.5			@ 14 feet, some cobbles, rig chatter.
15	46 for 5"						@ 15 feet, no recovery, cobble in tip of sampler. END OF BORING @ 15.42' No groundwater No bedrock
20							

PROJECT:	Proposed Sewer Improvements	PROJECT NUMBER:	63643.9
CLIENT:	TKE Engineering, Inc.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.	DATE DRILLED:	May 26, 2020	
	EQUIPMENT:	Mobile B-61	
	HOLE DIA.: 8"	ENCLOSURE:	B-15

APPENDIX C

Laboratory Testing Program and Test Results

APPENDIX C LABORATORY TESTING

General

Selected soil samples obtained from the borings were tested in our geotechnical laboratory to evaluate their physical and engineering properties. The laboratory testing program performed in conjunction with our investigation included in-place moisture content and dry density, laboratory compaction characteristics, direct shear, and sand equivalent. Descriptions of the laboratory tests are presented in the following paragraphs:

Moisture-Density Tests

The moisture content and dry density information provides an indirect measure of soil consistency for each stratum, and can also provide a correlation between soils on this site. The dry unit weight and field moisture content were determined in accordance with ASTM D 2937 and 2216, respectively, for selected undisturbed samples, and the results are shown on the boring logs, Enclosures B-1 through B-15, within Appendix B, for convenient correlation with the soil profile.

Laboratory Compaction

Selected soil samples were tested in the laboratory to determine compaction characteristics using the ASTM D 1557 compaction test method. The results are presented in the following table:

LABORATORY COMPACTION				
Boring Number	Sample Depth (ft)	Material Description (U.S.C.S.)	Maximum Dry Density (psf)	Optimum Moisture Content (percent)
B-1	2-5	(SM) Silty Sand with Gravel	138.5	7.0
B-7	1-4	(SM) Silty Sand	139.0	6.0
B-10	3-6	(SW) Well Graded Sand with Gravel	137.0	5.0

Direct Shear Tests

Shear tests are performed with a direct shear machine at a constant rate-of-strain (usually 0.04 inches/minute). The machine is designed to test a sample partially extruded from a sample ring in single shear. Samples are tested at varying normal loads in order to evaluate the shear strength parameters, angle of internal friction and cohesion in accordance with ASTM D 3080. Samples are tested in a relatively undisturbed state and soaked, to represent the worst case conditions expected in the field. The results of the direct shear tests are presented in the following table:

DIRECT SHEAR TEST				
Boring Number	Sample Depth (ft)	Material Description (U.S.C.S.)	Apparent Cohesion (psf)	Angle of Internal Friction (degrees)
B-1	5	(SM) Silty Sand with Gravel	300	41
B-4	10	(SW) Well Graded Sand with Gravel	400	37
B-8	5	(SW) Well Graded Sand with Gravel	0	43
B-10	15	(SW) Well Graded Sand with Gravel	650	32
B-11	5	(SW) Well Graded Sand with Gravel	0	41

Sand Equivalent

The sand equivalent of selected subgrade soils were evaluated using the California Sand Equivalent Test Method, Caltrans Number 217. The results of the sand equivalent tests are presented on the table below and on Enclosure C-1:

SAND EQUIVALENT TEST			
Boring Number	Sample Depth (ft)	Material Description (U.S.C.S.)	S.E.
B-1	5	(SM) Silty Sand with Gravel	31
B-2	5	(SM) Silty Sand	22
B-3	5	(SW) Well Graded Sand with Gravel	61
B-4	5	(SW) Well Graded Sand with Gravel	21
B-05	5	(SW) Well Graded Sand with Gravel	31

Boring Number	Sample Depth (ft)	Material Description (U.S.C.S.)	S.E.
B-6	5	(SM) Silty Sand	33
B-7	5	(SM) Silty Sand	17
B-8	5	(SW) Well Graded Sand with Gravel	47
B-9	5	(SW) Well Graded Sand with Gravel	51
B-10	5	(SW) Well Graded Sand with Gravel	34
B-11	5	(SW) Well Graded Sand with Gravel	60
B-12	5	(SW) Well Graded Sand with Gravel	61
B-13	5	(SW) Well Graded Sand with Gravel	60
B-14	5	(SW) Well Graded Sand with Gravel	67
B-15	5	(SP) Poorly Graded Sand	30

APPENDIX D

HDR Test Results



June 18, 2020

via email: atardie@lorgeo.com

LOR GEOTECHNICAL GROUP, INC.
6121 Quail Valley Court
Riverside, CA 92507

Attention: Mr. Andrew Tardie

Re: Soil Corrosivity Study
Areas H & I
Desert Hot Springs, CA
HDR #20-0318SCS, Lor #63643.9

Introduction

Laboratory tests have been completed on five soil samples selected by HDR from boring logs provided for the referenced project. The purpose of these tests was to determine if the soils might have deleterious effects on underground utility piping, a steel casing, and concrete structures. HDR Engineering, Inc. (HDR) assumes that the samples selected are representative of the most corrosive soils at the site.

The proposed project consists of the installation of a 12-inch vitrified clay sewer pipe. The location of the new sewer pipe is outlined in the attached Site Map in Desert Hot Springs, California, and the water table is reportedly seven feet deep.

The scope of this study is limited to a determination of soil corrosivity and general corrosion control recommendations for materials likely to be used for construction. HDR's recommendations do not constitute, and are not meant as a substitute for, design documents for the purpose of construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, HDR will be happy to work with them as a separate phase of this project.

hdrinc.com

431 W. Baseline Road, Claremont, CA 91711-1608
(909) 626-0967

Laboratory Soil Corrosivity Tests

The electrical resistivity of each sample was measured in a soil box per ASTM G187 in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The pH of the saturated samples was measured per ASTM G51. A 5:1 water:soil extract from each sample was chemically analyzed for the major soluble salts commonly found in soil per ASTM D4327, ASTM D6919, and Standard Method 2320-B¹. Laboratory test results are shown in the attached Table 1.

Soil Corrosivity

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and soluble salt contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:²

Soil Resistivity in ohm-centimeters	Corrosivity Category
Greater than 10,000	Mildly Corrosive
2,001 to 10,000	Moderately Corrosive
1,001 to 2,000	Corrosive
0 to 1,000	Severely Corrosive

¹ American Public Health Association (APHA). 2012. *Standard Methods of Water and Wastewater*. 22nd ed. American Public Health Association, American Water Works Association, Water Environment Federation publication. APHA, Washington D.C.

² Romanoff, Melvin. *Underground Corrosion*, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, pp. 166–167.

Other soil characteristics that may influence corrosivity towards metals are pH, soluble salt content, soil types, aeration, anaerobic conditions, and site drainage.

Electrical resistivities were in the mildly and moderately corrosive categories with as-received moisture. When saturated, the resistivities were in the moderately corrosive category. Some of the resistivities dropped considerably with added moisture because the samples were dry as-received.

Soil pH values varied from 7.7 to 8.3. This range is mildly to moderately alkaline.³ These values do not particularly increase soil corrosivity.

The soluble salt content of the samples was low. Chloride and sulfate were found at low concentrations.

The nitrate concentration in the sample from B-3 was high enough to be aggressive to copper. Ammonium was not detected.

Tests were not made for sulfide and oxidation-reduction (redox) potential because these samples did not exhibit characteristics typically associated with anaerobic conditions.

This soil is classified as moderately corrosive to ferrous metals and aggressive to copper.

Similitude Analysis

HDR has completed a soil corrosion similitude analysis to assess the efficacy of installing the proposed steel casing exposed to project site soil conditions and to calculate a corrosion loss for the casing. The casing will be installed utilizing jack and bore techniques.

HDR understands that a design life of 50 years is desired. A safety factor of two was applied to all corrosion rates presented in this report.

It is assumed that the steel casing will not come into contact with concrete. The pH differential created by the casing in partial contact with both soil and concrete would significantly increase the corrosion rate of the pile near the concrete/soil boundary that is not accounted for in this analysis.

³ Romanoff, Melvin. *Underground Corrosion*, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, p. 8.

Corrosion rates of metals in soils depend on construction details, soil moisture, etc., in addition to soil corrosivity, and are, therefore, difficult to predict. Data for corrosion of metals in a variety of soils was compiled by Melvin Romanoff of the National Bureau of Standards in a Circular 579 entitled Underground Corrosion. The basic methodology was to identify the representative soil characteristics most likely to be encountered at the project site and then use the data presented in Circular 579 to calculate the corrosion rates based upon the similitude between the soils documented and the soils anticipated at the site.

Based on the laboratory analysis (see attached Table 1) completed on the soil samples, Soil 12 listed in Table 6 of Romanoff's Circular 579 was selected as the soil of similar composition and corrosivity levels to the project site.

Corrosion Loss for Steel Exposed to Soils

Based on Soil 12, an average single-side uniform corrosion rate of approximately 0.96 mpy was estimated for bare steel exposed to site soils. Over the 50-year design life of the bare steel casing, this equates to a corrosion loss of 48 mils (0.048 inches).

Other Considerations

Uniform corrosion is not the only type of corrosion that can occur on buried metals. Localized corrosion in the form of pitting can also occur. The pitting corrosion rate for this soil type was estimated to be approximately 9.8 mpy. This could result in average pit depths of 490 mils (0.490 inches) of the steel casing. However, pitting and/or perforation of a steel casing are not catastrophic since pitting is a highly localized phenomenon, which would not significantly reduce the mass, weight, or structural capacity of the steel casing.

Corrosion Control Recommendations

The life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc., in addition to soil corrosivity, and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion.

The following recommendations are based on the soil conditions discussed in the Soil Corrosivity section above. Unless otherwise indicated, these recommendations apply to the entire site or alignment.

Steel Casing Pipe

1. The casing should be designed per NACE SP0200.
2. It is assumed all casing pipe segments will be welded. In this case no further action is necessary to maintain electrical continuity of the casing.
3. Install test stations at each end of the casing to facilitate corrosion monitoring and the application of cathodic protection. Each wire should be independently welded or pin-brazed to the casing pipe.
4. Prevent contact between the casing pipe and concrete and/or reinforcing steel, with such items as plastic sleeves, rubber seals, or 20 mil plastic tape.
5. Provide electrical isolation between metallic appurtenances and the steel casing.
6. Seal the casing ends with end seals to prevent the ingress of soil.
7. Do not coat the casing.
8. Include a corrosion allowance of 0.96 mpy in the design of the casing, or apply cathodic protection to the steel casing as per NACE SP0169.

Plastic and Vitrified Clay Pipe

1. No special corrosion control measures are required for plastic and vitrified clay piping placed underground.
2. Protect all metallic fittings and valves with wax tape per AWWA C217, or with epoxy and appropriately sized cathodic protection per NACE SP0169.

Metallic Appurtenances

1. On all metallic appurtenances and fittings not protected by cathodic protection, coat bare metal such as valves, bolts, flange joints, joint harnesses, and flexible couplings with wax tape per AWWA C217 after assembly.

Concrete Structures and Pipe

1. From a corrosion standpoint, any type of ASTM C150 cement may be used for concrete structures and pipe because the sulfate concentration is negligible, from 0 to 0.10 percent.^{4,5,6}
2. Standard concrete cover over reinforcing steel may be used for concrete structures and pipe in contact with these soils due to the low chloride concentrations⁷ found onsite. Limit the water-soluble chloride ion content in the concrete mix design to less than 0.3 percent by weight of cement.
3. Due to the high ground water table encountered at this site, cyclical or continual wetting may be an issue. Any contact between concrete structures and ground water should be prevented.
 - a. For structures that extend below the water table, contact can be prevented with an impermeable waterproofing system. Options include a membrane such as Grace PrePrufe[®] products, a liquid applied barrier coating, or a waterproofing admixture such as Xypex[®] Admix. Visqueen, similar rolled barriers, or bentonite-based membranes are not viable waterproofing systems for corrosion protection.
 - b. For structures above the water table, contact can be prevented with a gravel capillary break under the concrete and a vapor retarding membrane. Note that per ASTM E1643, “vapor retarders are not intended to provide a waterproofing function.”⁸ Alternatively, an impermeable waterproofing system may be used.

⁴ 2015 International Building Code (IBC) which refers to American Concrete Institute (ACI) 318-14 Table 19.3.2.1

⁵ 2015 International Residential Code (IRC) which refers to American Concrete Institute (ACI) 318-14 Table 19.3.2.1

⁶ 2016 California Building Code (CBC) which refers to American Concrete Institute (ACI) 318-14 Table 19.3.2.1

⁷ Design Manual 303: Concrete Cylinder Pipe. Ameron. p.65

⁸ ASTM E1643-11 (2017): Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs. ASTM International, 2017.

Closure

The analysis and recommendations presented in this report are based upon data obtained from the laboratory samples. This report does not reflect variations that may occur across the site or due to the modifying effects of construction. If variations appear, HDR should be notified immediately so that further evaluation and supplemental recommendations can be provided.

HDR's services have been performed with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended.

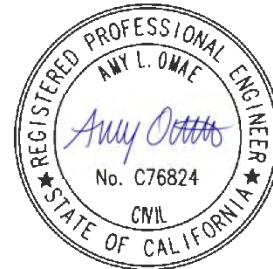
Please call if you have any questions.

Respectfully Submitted,
HDR Engineering, Inc.



James T. Keegan

Enc: Table 1
Site Map



Amy Omae, PE



Table 1 - Laboratory Tests on Soil Samples

Lor Geotechnical Group, Inc.
Areas H & I
 Your #63643.9, HDR Lab #20-0318SCS
 8-Jun-20

Sample ID

		B-3 @ 5'	B-6 @ 5'	B-8 @ 5'	B-10 @ 25'	B-13 @ 5'	
Resistivity	Units						
as-received	ohm-cm	56,000	28,000	8,000	6,000	92,000	
saturated	ohm-cm	4,000	4,800	4,800	5,600	6,800	
pH		7.7	8.0	8.3	8.0	8.1	
Electrical							
Conductivity	mS/cm	0.10	0.10	0.09	0.04	0.07	
Chemical Analyses							
Cations							
calcium	Ca ²⁺	mg/kg	87	80	24	26	44
magnesium	Mg ²⁺	mg/kg	4.2	2.6	1.4	1.8	2.6
sodium	Na ¹⁺	mg/kg	22	69	97	42	43
potassium	K ¹⁺	mg/kg	12	7.3	9.1	6.6	9.5
Anions							
carbonate	CO ₃ ²⁻	mg/kg	26	51	42	ND	45
bicarbonate	HCO ₃ ¹⁻	mg/kg	49	137	34	134	40
fluoride	F ¹⁻	mg/kg	1.0	0.8	9.7	3.9	0.9
chloride	Cl ¹⁻	mg/kg	45	4.6	12	6.4	13
sulfate	SO ₄ ²⁻	mg/kg	14	64	61	21	29
phosphate	PO ₄ ³⁻	mg/kg	ND	ND	ND	ND	ND
Other Tests							
ammonium	NH ₄ ¹⁺	mg/kg	ND	ND	ND	ND	ND
nitrate	NO ₃ ¹⁻	mg/kg	91	18	10	6.0	8.2
sulfide	S ²⁻	qual	na	na	na	na	na
Redox	mV		na	na	na	na	na

Resistivity per ASTM G187, Cations per ASTM D6919, Anions per ASTM D4327, and Alkalinity per APHA 2320-B.

Electrical conductivity in millisiemens/cm and chemical analyses were made on a 1:5 soil-to-water extract.

mg/kg = milligrams per kilogram (parts per million) of dry soil.

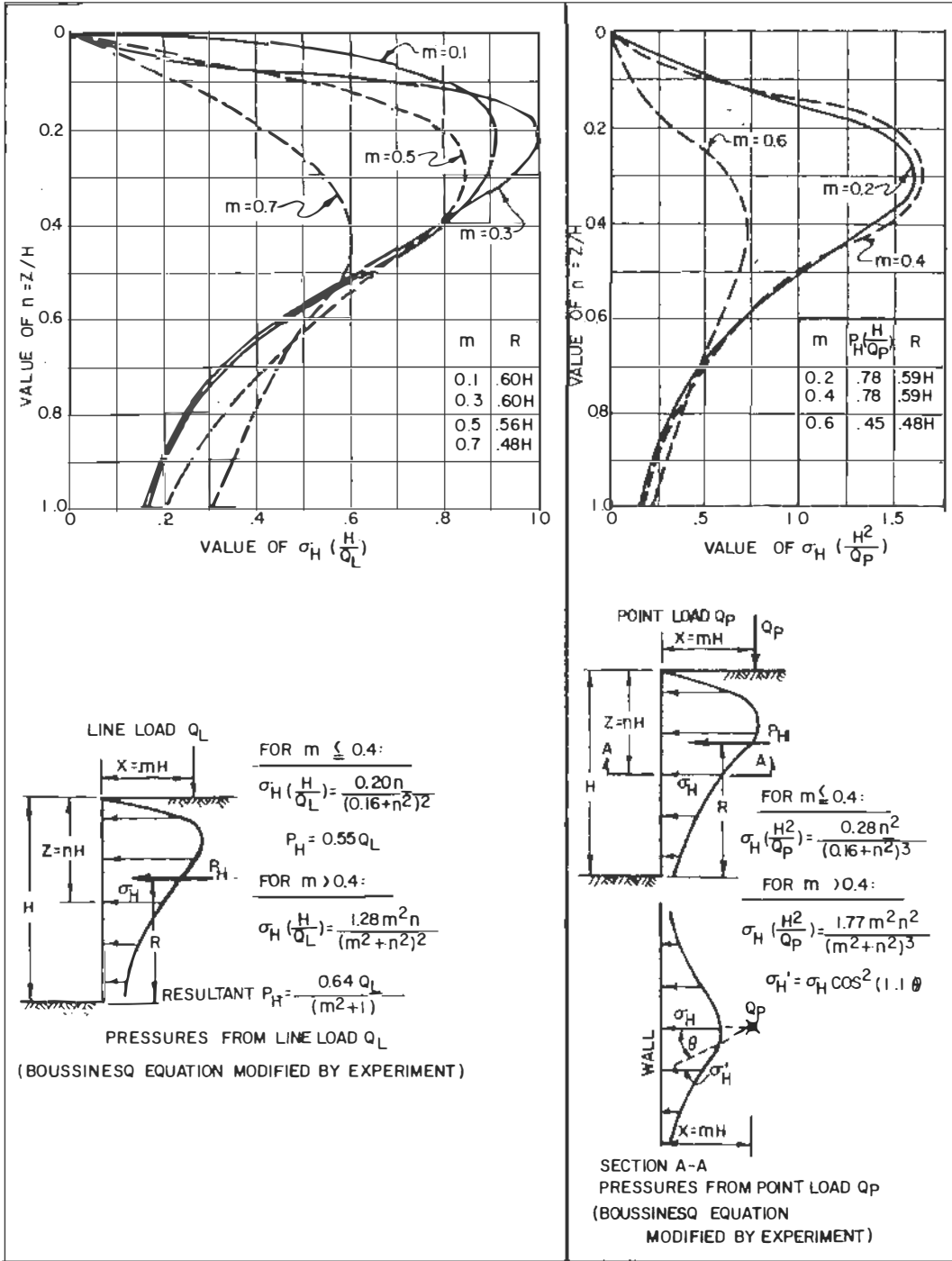
Redox = oxidation-reduction potential in millivolts

ND = not detected

na = not analyzed

APPENDIX E

Shoring Diagram Design



SHORING DIAGRAM DESIGN

PROJECT: AREAS H & I SEWER IMPROVEMENTS, DESERT HOT SPRINGS, CALIFORNIA	PROJECT NO.: 63643.9
CLIENT: TKE ENGINEERING, INC.	ENCLOSURE: E-1
LOR Geotechnical Group, Inc.	DATE: JUNE 20120

IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES
MISSION SPRINGS WATER DISTRICT AREAS H AND I
SEWER IMPROVEMENTS PROJECT

City of Desert Hot Springs
Riverside County, California

For Submittal to:

Mission Springs Water District
66575 Second Street
Desert Hot Springs, California 92240
and
State Water Resources Control Board
1001 I Street/P.O. Box 944212
Sacramento, CA 94244

Prepared for:

Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405

Prepared by:

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

Bai “Tom” Tang, Principal Investigator
Michael Hogan, Principal Investigator

April 4, 2021
CRM TECH Contract No. 3677

Title: Identification and Evaluation of Historic Properties: Mission Springs Water District Areas H and I Sewer Improvements Project, City of Desert Hot Springs, Riverside County, California

Author(s): Bai “Tom” Tang, Principal Investigator/Historian
John J. Eddy, Archaeologist/Report Writer
Daniel Ballester, Archaeologist/Field Director

Consulting Firm: CRM TECH
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Date: April 4, 2021

For Submittal to: Mission Springs Water District
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Desert Hot Springs, California 92240
(760) 329-6448
and
State Water Resources Control Board
1001 I Street/P.O. Box 944212
Sacramento, CA 94244
(916) 341-5057

Prepared for: Tom Dodson, President
Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405
(909) 882-3612

USGS Quadrangle: Seven Palms, Calif., 7.5’ quadrangle (T2S R5E, Section 32, San Bernardino Baseline and Meridian)

Project Size: Approximately 5.7 linear miles of pipeline alignments

Keywords: Northwestern Coachella Valley; Colorado Desert; prehistoric village site at Two Bunch Palms (Site 33-001246); Cabot Yerxa’s homestead and trading post; no known “historic properties” or “historical resources” within the Area of Potential Effects

EXECUTIVE SUMMARY

Between October 2020 and March 2021, at the request of Tom Dodson and Associates, CRM TECH performed a historic property inventory for the proposed Mission Springs Water District (MSWD) Areas H and I Sewer Improvements Project in the City of Desert Hot Springs, Riverside County, California. The project proposes to expand the MSWD's wastewater collection system through the installation of approximately 30,000 linear feet of 8-inch sewer pipeline in Sub Areas H and I of the district's service area in order to eliminate septic tanks that threaten contamination of groundwater supplies and protect underground hot mineral water, which is the economic basis of the community's spa industry.

This technical study is a part of the environmental review process for the project, as required by MSWD, the lead public agency, pursuant to the California Environmental Quality Act (CEQA). The project may involve federal funding administered by the State of California Water Resources Control Board (SWRCB) and thereby qualify as a federal "undertaking," which mandates compliance with Section 106 of the National Historic Preservation Act (NHPA) as well in a process known as CEQA-Plus.

The Area of Potential Effects (APE) for the undertaking encompass the maximum extent of ground disturbance required during construction, which mostly coincides with the existing rights-of-way of the various public roadways along the pipeline routes. The overall extent of the undertaking, namely Sub Areas H and I, lies south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road, extending approximately a half-mile south of Hacienda Avenue. Improvements will occur within the following roadways: Agua Cayendo Road, Cuando Way, Oro Lomo Street, Suerte Way, Tunitas Road, Eliseo Road, Miracle Hill Road, Cerrita Way, Pequena Drive, Cielo Azul Way, Loma Vista Road, Hidalgo Street/Yerxa Way, Hermano Way, Inaja Street, Quinta Way, Monterico Road, Alameda Drive, Arena Blanca Road, Oris Drive, Key Way, and Monterey Road.

The vertical extent of the APE, represented by the maximum depth of ground disturbance associated with pipeline installation, will reach 10 feet below current ground surface in most of the APE, while excavation to the depth of approximately 15 feet will be necessary for pipeline installation under an existing drainage channel between Hidalgo Street and Quinta Way. The undertaking proposes no aboveground improvements that may introduce visual, atmospheric, or other indirect impacts. Therefore, the limits of the APE are constrained to only those areas where direct ground disturbances may occur. The APE lies within the east half of Section 32, T2S R5E, San Bernardino Baseline and Meridian.

The purpose of this technical study is to provide the MSWD and the SWCRB with the necessary information and analysis to determine whether the undertaking would have an adverse effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by California PRC §5020.1(j), that may exist in the APE. To accomplish this objective, CRM TECH completed a cultural resources records search, historical and geoarchaeological background research, Native American consultation, and a systematic field survey.

Throughout the course of this study, no “historic properties” or “historical resources” were encountered within the APE boundaries. However, the research results indicate that a prehistoric Native American village site at Two Bunch Palms, designated Site 33-001246 in the California Historical Resources Inventory, lies in close proximity to the southwestern portion of the APE, while the southern portion of the APE is known to be the general location of famed early settler Cabot Yerxa’s (1883-1965) original homestead and trading post. Therefore, the potential for encountering buried archaeological deposits of prehistoric or early historic origin during construction is considered to be moderate to high in the portion of the APE along Miracle Hill Road and the portion delineated by Hidalgo Street/Yerxa Road, Loma Vista Road, and Hermano Way.

Since the APE lies predominantly within the rights-of-way of paved public roadways, standard archaeological testing prior to the commencement of the undertaking does not appear to be a feasible approach to determine the presence or absence of subsurface cultural remains. In order to identify such remains in a timely manner and, if necessary, protect them from adverse effect from the undertaking, CRM TECH recommends that excavations and other ground-disturbing operations that will occur in the archaeologically sensitive area and reach beyond the roadbed fill—generally speaking the uppermost five feet of surface and near-surface soils—be conducted under the direction and close observation of a qualified archaeologist. If any potentially significant cultural remains are encountered, the mechanical excavations should be halted or diverted while an archaeological team recovers the materials through procedures consistent to a standard archaeological testing program.

Under this condition, the proposed undertaking may be cleared to proceed in compliance with Section 106 and CEQA provisions on cultural resources. No further cultural resources investigation is recommended for the rest of the undertaking unless project plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during earth-moving operations elsewhere within the APE, all work within a 100-foot radius of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. Any human remains unearthed during the project will need to be addressed in accordance with California Health and Safety Code §7050.5 and Public Resources Code §5097.98.

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INTRODUCTION

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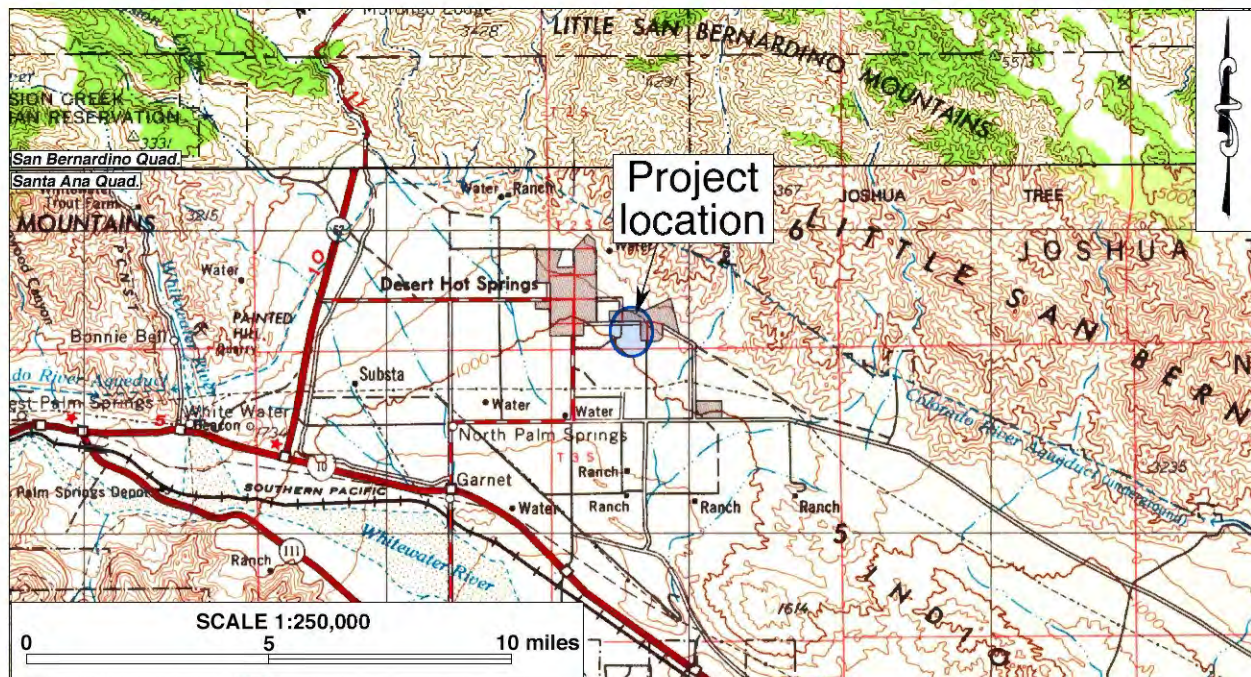


Figure 1. Project vicinity. (Based on USGS San Bernardino, Calif., 120’x60’ quadrangle [USGS 1969])

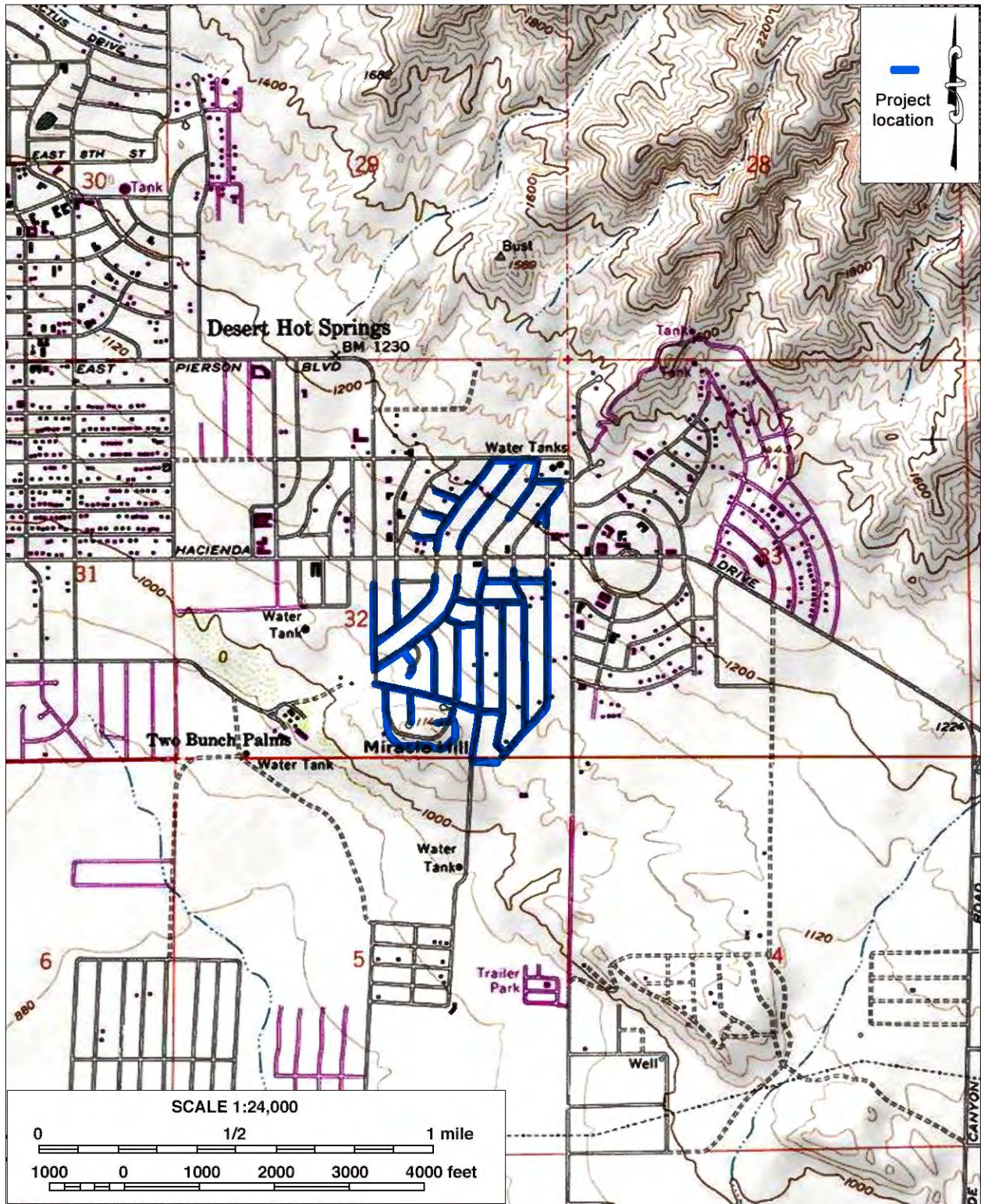


Figure 2. Project location. (Based on USGS Seven Palms Valley, Calif., 7.5' quadrangle [USGS 1978])



Figure 3. Aerial image of the APE. (Based on Google Earth imagery)

Drive, Cielo Azul Way, Loma Vista Road, Hidalgo Street/Yerxa Way, Hermano Way, Inaja Street, Quinta Way, Monterico Road, Alameda Drive, Arena Blanca Road, Oris Drive, Key Way, and Monterey Road.

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The purpose of this technical study is to provide the MSWD and the SWCRB with the necessary information and analysis to determine whether the undertaking would have an adverse effect on any “historic properties,” as defined by 36 CFR 800.16(l), or “historical resources,” as defined by California PRC §5020.1(j), that may exist in the APE. To accomplish this objective, CRM TECH completed a cultural resources records search, historical and geoarchaeological background research, Native American consultation, and a systematic 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.

SETTING

NATURAL SETTING

The City of Desert Hot Springs is situated near the northwestern end of the Coachella Valley, a northwest-southeast trending desert valley that constitutes the western end of the Colorado Desert. Dictated by this geographic setting, the climate and environment of the 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 freezing in winter. Average annual precipitation is less than five inches, and the average annual evaporation rate exceeds three feet.

The APE is situated in a suburban residential neighborhood, and most of the ground surface within the project boundaries is currently under pavement (Fig. 4). The only exposed ground surface in the APE is found along a 350-foot segment of the project alignment that crosses undeveloped open land on Assessor’s Parcel No. (APN) 656-150-003, located on the southern end of the APE and to the east of Yerxa Road (Figs. 2, 3, 5). The rest of the APE is mostly lined by single family residences, although some vacant parcels are also adjacent (Figs. 3, 4). Elevations in the APE range approximately between 1,030 and 1,240 feet above mean sea level, with gradual inclines towards the Little San Bernardino Mountains to the north and Miracle Hill to the south (Fig. 2).

Vegetation within the APE boundaries is limited to a few scattered bushes along the 350-foot segment through APN 656-150-003. In its native state, vegetation common to the project vicinity would be consistent with the Creosote Bush Scrub Plant Community, which includes creosote bush,



Figure 4. Typical landscape in the APE, view to the north at the intersection of Miracle Hill Road and Loma Vista Road. (Photograph taken on December 18, 2020)



Figure 5. Open field at the southern end of the APE, view to the west towards Yerxa Road. (Photograph taken on February 17, 2021)

prickly pear cactus, cholla, brittlebush, and globemallow. Animals commonly found in this area are reptiles (lizards and snakes), small to medium mammals (coyotes, jackrabbits, desert cottontails, rats, and mice), native birds (doves, vultures, raptors, and quail), and arthropods (beetles, desert tarantula and scorpions).

CULTURAL SETTING

Prehistoric Context

The study of pre-European culture in southern California's desert region has drawn the interest of academics for more than a century, and a considerable amount of archaeological research in the last 50 years is credited to practitioners of cultural resource management. Archaeological frameworks of analysis were built upon the foundational academic work of Elizabeth W.C. Campbell (1931; see also Campbell and Campbell 1935 and Campbell et al. 1937) and Malcolm J. Rogers (1929; 1939), later supplemented by compliance-based research (e.g., Weide 1973; Wilke and Weide 1976; Stickel and Weinman-Roerts 1980) and synthesized by Warren (1984) into a macroregional archaeological framework for inland southern California. In the last 40 years, archaeologists' interest in cultural variability prompted the desert region to be separated into subregions that include the Mojave Desert (e.g., Sutton 1996; Sutton et al. 2007), Colorado Desert (e.g., Love and Dahdul 2002; Schaefer 1994; Schaefer and Laylander 2007; Wilke 1978), and inland valleys (e.g., Goldberg 2001; Grenda 1997; O'Connell et al. 1974).

The prehistory of the Colorado Desert may be divided into several chronological periods: Paleoarchaic, Early Archaic, Late Archaic, and Late Prehistoric. This differs from the archaeological framework for the neighboring Mojave Desert, which is divided into archaeological complexes representing distinct sets of material traits, settlement patterns, and subsistence strategies that are independent of chronological periods. This distinction is significant for several reasons: 1) few sites in the Colorado Desert date older than 2,000 years (cf. Indian Hill Rock Shelter [McDonald 1992; Wilke and McDonald 1989; Wilke et al. 1986], northern Coachella Valley [Love and Dahdul 2002], and northwestern shoreline of Lake Cahuilla [*ibid.*]); 2) the majority of sites in the Colorado Desert are associated with Late Prehistoric cultures as most notably defined by the presence of ceramics and desert series projectile points (i.e., Cottonwood triangular and Desert side-notched); and 3) while the published work on the Colorado Desert is commendable (e.g., Schaefer 1994; Love and Dahdul 2002; Schaefer and Laylander 2007), there has been a greater effort to synthesize research and publish on the archaeology of the Mojave Desert, likely due in part to its geographic proximity to, and association with, the Great Basin.

The earliest period identified is the Paleoarchaic (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 (Schaefer 1994:63). These small groups settled "on mesas and terraces overlooking larger washes" (*ibid.*:64). Typical artifacts and features from that period include 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 sites have been identified to this 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 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 brown and buff ware ceramics were introduced into the region.

The shores of Holocene Lake Cahuilla, during times of its presence, attracted much settlement and resource procurement. After the last desiccation of the lake around 1700, according to Schaefer (1994:66), the Native people moved away from its receding shores towards rivers, streams, and mountains. Numerous archaeological sites dating to this period have been identified along the former shoreline of Holocene Lake Cahuilla in the Coachella Valley. Testing and mitigative excavations at these sites have recovered brown and buff ware ceramics, a variety of groundstone and projectile point types, ornaments, and cremation remains.

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 Takic-speaking Cahuilla are generally divided by anthropologists into three groups, according to their geographic setting: Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley, and Desert Cahuilla of the eastern Coachella Valley. The basic written sources on Cahuilla culture and history include Kroeber (1925), Strong (1929), and Bean (1978). The following ethnohistoric discussion is based primarily on 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. 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, gathering food, or utilizing other necessary resources. They interacted with other clans through trade, intermarriage, and ceremonies.

The Cahuilla people were primarily hunters and gatherers who exploited 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. Once the lake had desiccated, they utilized the available terrestrial resources. They also migrated to the higher elevations of the nearby mountains to take advantage of the resources and cooler temperatures available in that environment.

The Cahuilla collected seeds, roots, wild fruits and berries, acorns, wild onions, piñon nuts, and mesquite and screw beans. Common game animals included deer, antelope, big horn sheep, rabbits,

wood rats and, when Holocene Lake Cahuilla was present, fish and waterfowls. The Cahuilla hunted with throwing sticks, clubs, nets, traps, snares, as well as bows and arrow (Bean 1978; CSRI 2002). Common tools and utensils 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 available material as well as exotic material 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.

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). Then, 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 present-day City of Desert Hot Springs is among the communities that were largely created by the Coachella Valley’s resort industry. Although sporadic settlement took place in the vicinity as early as 1908, the city owes much of its early growth to the abundance of hot mineral water along the San Andreas fault line. L.W. Coffee, who subdivided the Desert Hot Springs townsite in 1933, is also credited with the first successful development of the hot springs for commercial use (Gunther 1984:151). Advertised in the early and mid-20th century primarily for its potential for health spas and convalescent homes, Desert Hot Springs saw sufficient growth by 1944 to warrant the establishment of a post office. After a further growth spurt during the post-WWII boom, Desert Hot Springs incorporated as a city in 1963.

RESEARCH METHODS

RECORDS SEARCH

The record search for this study was completed by the staff of the Eastern Information Center (EIC) on December 14, 2020. Located on the campus of the University of California, Riverside, the EIC is the State of California's official repository of archaeological and historical records for the County of Riverside. The records search was focused on the identification of previous cultural resource surveys and known cultural resources within a half-mile radius of the APE. Known cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Historical 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.

HISTORICAL BACKGROUND RESEARCH

Historical background research was conducted by CRM TECH archaeologist John J. Eddy on the basis of published historical literature, maps, and aerial photographs. The purpose of the research is to assess land use and development within the scope of the records search over the past 150 years. Toward this end, land survey plat maps for T2S R5E dating to 1856 and prepared by the U.S. General Land Office (GLO) were accessed through the U.S. Bureau of Land Management website. U.S. Geological Survey (USGS) topographic maps dating between 1941 and 1985 were consulted via the USGS National Geologic Map Database website. Finally, aerial photographs available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software were inspected for the years between 1972 and 2019.

NATIVE AMERICAN PARTICIPATION

On October 16, 2020, CRM TECH contacted the State of California Native American Heritage Commission (NAHC) and requested a record search in the commission's Sacred Lands File (SLF). Following the commission's recommendations and previously established consultation protocol, CRM TECH further contacted a total of 14 tribal representatives in the region in writing and by telephone between October 21 and November 17, 2020, for additional information on potential Native American cultural resources in the project vicinity. The correspondence between CRM TECH and the Native American representatives is summarized below, and a complete record is presented in Appendix 2.

FIELD SURVEY

On December 18, 2020, and February 17, 2021, CRM TECH archaeologist Daniel Ballester carried out the field survey of the APE. Most of the APE lies within the heavily disturbed and mostly paved rights-of-way of the various public roadways, and these project alignments were surveyed at a reconnaissance level from a motor vehicle in light of the reduced archaeological sensitivity. The southernmost portion of the APE, consisting of the 350-foot segment of pipeline alignment across privately owned open land, was surveyed at an intensive level on February 17, 2021, after securing the proper authorization and access. This portion of the survey was conducted on foot at an

intensive level by walking two transects placed on either side of the project centerline, at a distance of 15 meters (approximately 50 feet) from each other. Through these efforts, the entire APE was systematically inspected to identify any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older).

GEOARCHAEOLOGICAL ANALYSIS

As a part of the research procedures, John J. Eddy pursued geoarchaeological analysis to assess the APE's potential for the deposition and preservation of subsurface cultural deposits from the prehistoric period, which cannot be detected through a standard surface archaeological survey. Sources consulted for this purpose included primarily USGS topographic and geologic maps, soils data from the U.S. Natural Resources Conservation Service website, and geotechnical and archaeological reports on nearby properties that include subsurface excavations. Findings from these sources were used to develop a geomorphologic history of the APE and address geoarchaeological sensitivity of the vertical APE.

RESULTS AND FINDINGS

RECORDS SEARCH

EIC records indicate that most of the APE has been surveyed previously for cultural resources (Fig. 6). With the exception of the southernmost 350-foot segment across private land, the rest of the pipeline alignments were all included in a similar study that CRM TECH completed in 2010 (Jacquemain et al. 2010; No. 10254 in Fig. 6). No cultural resources were identified within or adjacent to the current APE during the 2010 survey or any other past studies nearby. Since the 2010 survey is now more than 10 years old, it is considered out-of-date for statutory compliance purposes today.

Within the half-mile scope of the records search, 16 additional area-specific cultural resource studies have been reported to the EIC, collectively covering roughly three quarters of the total ground surface (Fig. 6). These studies resulted in the identification of five cultural resources within a half-mile of the APE (see App. 3). Among these was early settler Cabot Yerxa's "Indian Pueblo," a Hopi-style structure built between 1941 and 1965 (33-006842), as well as a prehistoric artifact scatter (33-016938), two isolated localities with fewer than three pieces of prehistoric pottery each (33-024265 and 33-024266), and a prehistoric Native American village site at the Two Bunch Palms oasis (33-001246). None of these localities extend into the APE, but the easternmost portion of Site 33-001246 was recorded to be within a few hundred feet of the APE along Miracle Hill Road (see App. 3).

First recorded in 1977, Site 33-001246 is currently the subject of ongoing archaeological testing and data recovery program that CRM TECH has been engaged in since 2006. Excavations into the various mesquite dunes within the site boundary resulted in the discovery of deeply buried and stratified archaeological deposits associated with Late Archaic and Late Prehistoric cultures. These deposits contain dense clusters of artifacts and features of diverse types, suggesting intensive residential occupation and extensive site use over the past 2,500 years.

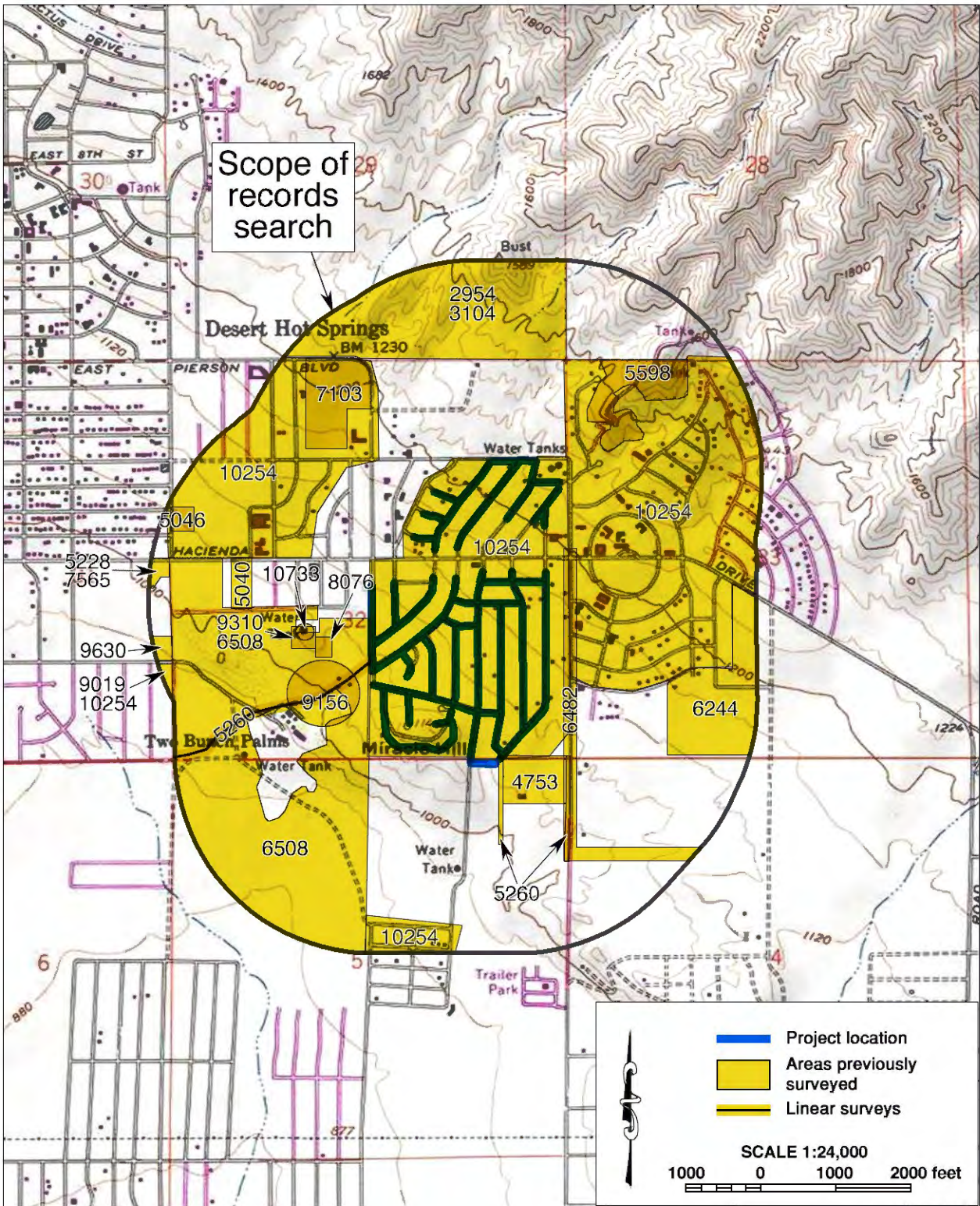


Figure 6. Previous cultural resources studies in the vicinity of the APE, listed by EIC file number. (See App 3. For locations of previously identified historical/archaeological resources)

Late Prehistoric living surfaces with multiple thermal features and distinct work areas have been discovered in the easternmost portion of the site, approximately 900 feet west of the APE. This includes the remains of a *ramada* floor, a processing area with groundstone but few to no flaked-stone artifacts, and a flaked-stone tool production area surrounding a thermal feature and containing a multitude of Cottonwood Triangular and Desert Side-Notched projectile points. Deposits in this area of the site ranged from the surface to depths of more than one meter.

The deepest archaeological deposits encountered during the excavations at Site 33-001246 lie in the western portion of the site and extend to a depth of approximately three meters below the surface of a large mesquite dune. It is here that the region’s only known Archaic pit house feature was discovered in association with a concentration of stone beads, groundstone and flaked-stone artifacts, a bone awl, and several thermal features, including a large rock-lined oven or roasting pit. Based on the quantity, quality, and diversity of cultural remains found at the site, 33-001246, the Two Bunch Palms village site, is considered to be one the most significant and unique prehistoric archaeological resources in the western Colorado Desert.

HISTORICAL BACKGROUND RESEARCH

Historical sources reviewed during this study indicate relatively little evidence of human activities in the project vicinity in the mid-19th century. In 1855-1856, the only man-made feature noted during the earliest official land surveys in the area was an “Indian trail” running northwest-southeast towards the general direction of the Two Bunch Palms oasis and Miracle Hill (Fig. 7). In 1913-1918, Cabot Yerxa (1883-1965), often credited as the first Anglo-American to settle in present-day

Desert Hot Springs, established a 160-acre homestead in the Two Bunch Palms-Miracle Hill area (Gunther 1984:551).

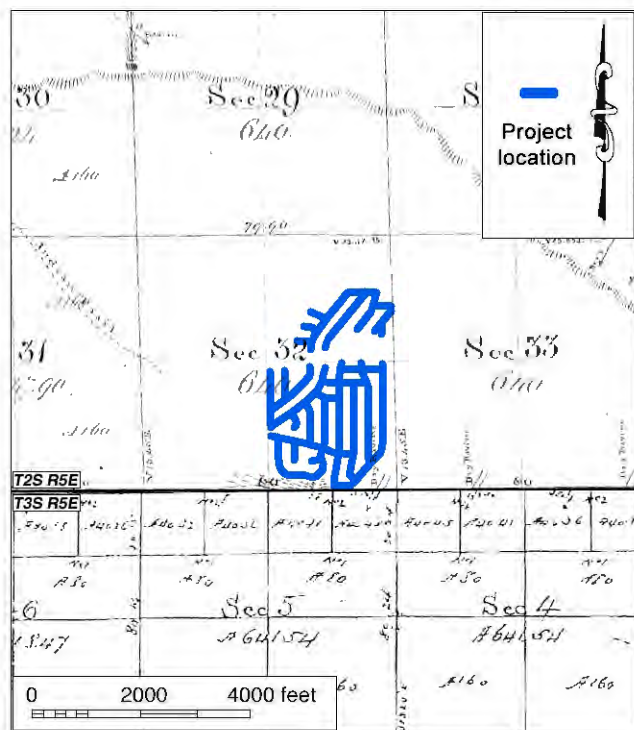


Figure 7. The APE and vicinity in 1855-1856. (Source: GLO 1856a; 1856b)

By the early 1940s, a small settlement had grown around Yerxa’s homestead, including the Two Bunch Palms Ranch (Fig. 8). Several dirt roads are depicted running through various portions of the APE, connecting the Two Bunch Palms-Miracle Hill area to downtown Desert Hot Springs to the west, Thousand Palms Canyon to the east, and Seven Palms Valley to the south (Fig. 8). By that time, Yerxa had constructed several buildings and a trading post. The location of those buildings appears to coincide with the southern portion of the APE, more specifically in the area bordered by Hidalgo Street, Loma Vista Road, and Hermano Way (Fig. 8).

The post-WWII boom led to the development of subdivided residential tracts and improved transportation infrastructure. Almost all of the

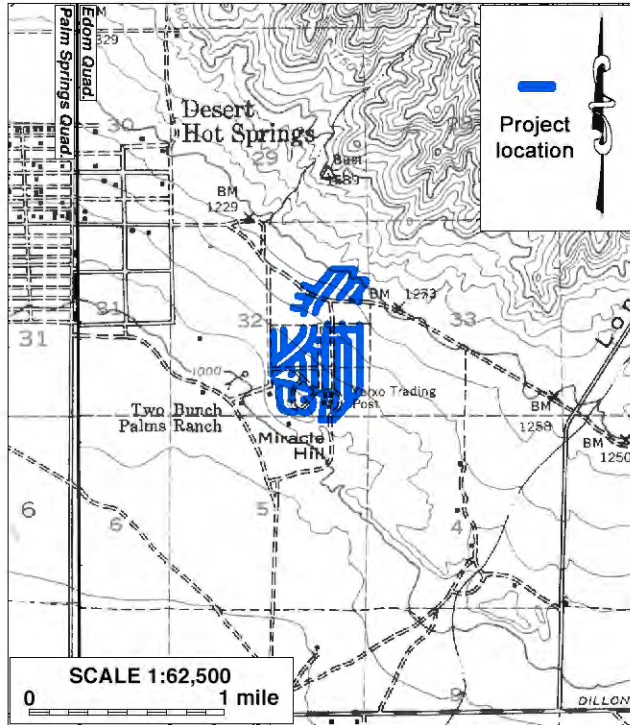


Figure 8. The APE and vicinity in 1940-1941. (Source: USGS 1940; 1941)

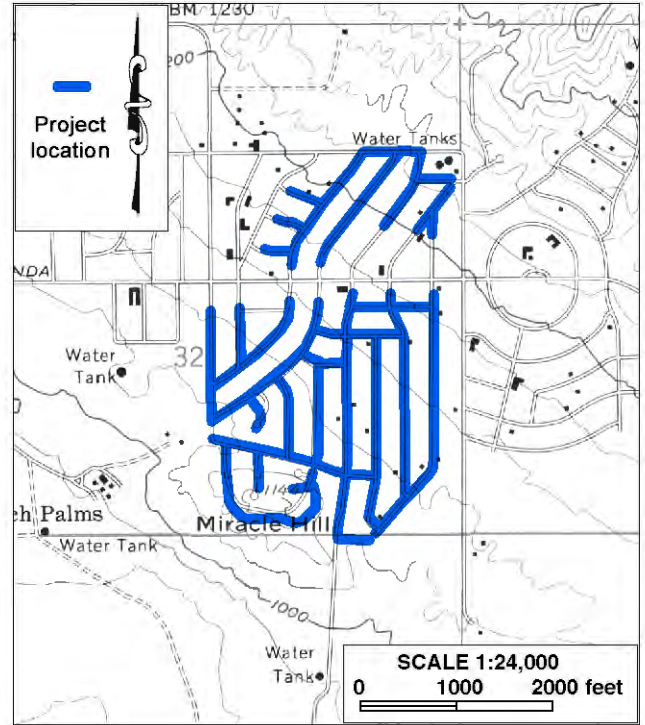


Figure 9. The APE and vicinity in 1956-1958. (Source: USGS 1958)

paved roads in the APE today were in place by the mid-1950s, as were a handful of residences along these streets (Fig. 9). This residential development likely caused the removal of Yerxa’s trading post and other buildings associated with the Desert Hot Springs pioneer.

Suburban sprawl from the downtown area moved steadily east through the 1960s while growth in the Two Bunch Palms-Miracle Hill area waned. By 1972, only a handful of new residences had been built in the subdivisions that encompass the APE (NETR 1972). This trend continued into the first decade of the current century, as the Two Bunch Palms-Miracle Hill area experienced its greatest growth spurt in the last 15-20 years (NETR 1972-2016; Google Earth 1995-2019).

NATIVE AMERICAN PARTICIPATION

The NAHC responded to CRM TECH’s inquiry in a letter dated October 19, 2020, stating that the results of the SLF record search were negative (see App. 2). Noting that the absence of specific information in the SLF does not preclude the presence of cultural resources, however, the NAHC recommended contacting local Native American groups for further information and provided a list of potential contacts in the region (see App. 2).

On October 21, 2020, CRM TECH sent written requests for comments to a total of 13 Native American tribes whose traditional use areas are located in and around the Coachella Valley, primarily those of Cahuilla heritage (see App. 2). Follow-up telephone solicitations were subsequently made on November 6 and 17, 2020. For some of the tribes, the designated spokespersons on cultural resources issues were contacted in lieu of the tribal political leaders on the

NAHC's referral list, as recommended in the past by the tribal government staff. In all, 14 tribal representatives were contacted during this study, as listed below:

- Patricia Garcia-Plotkin, Tribal Historic Preservation Officer, Agua Caliente Band of Cahuilla Indians;
- Amanda Vance, Chairperson, Augustine Band of Cahuilla Mission Indians;
- Judy Stapp, Director of Cultural Affairs, Cabazon Band of Mission Indians;
- BobbyRay Esparza, Cultural Coordinator, Cahuilla Band of Indians;
- Ray Chapparosa, Chairperson, Los Coyotes Band of Cahuilla and Cupeño Indians;
- Ann Brierty, Tribal Historic Preservation Officer, Morongo Band of Mission Indians;
- John Gomez, Jr., Cultural Resource Coordinator, Ramona Band of Cahuilla Indians;
- Jessica Mauck, Director of Cultural Resources Management, San Manuel Band of Mission Indians;
- Lovina Redner, Chairperson, Santa Rosa Band of Cahuilla Indians;
- Mark Cochrane, Co-Chairperson, Serrano Nation of Mission Indians;
- Wayne Walker, Co-Chairperson, Serrano Nation of Mission Indians;
- Joseph Ontiveros, Tribal Historic Preservation Officer, Soboba Band of Luiseño Indians;
- Michael Mirelez, Cultural Resources Coordinator, Torres Martinez Desert Cahuilla Indians;
- Anthony Madrigal, Jr., Tribal Historic Preservation Officer, Twenty-Nine Palms Band of Mission Indians.

As of this time, four of the 13 tribes have responded in writing, and four others have provided their comments by telephone (see App. 2). Among them, the San Manuel Band, the Cabazon Band, and the Los Coyotes Band expressed no concerns over this undertaking, while the Cahuilla Band deferred to other tribes in closer proximity to the APE. The Agua Caliente Band, the Soboba Band, and the Twenty-Nine Palms Band indicated their interest in engaging in further consultation with the MSWD and the SWRCB regarding this undertaking. The Agua Caliente Band and the Twenty-Nine Palms Band requested to review this report upon completion, while the Agua Caliente Band and the Soboba Band recommended Native American monitoring during construction. The Serrano Nation, meanwhile, requested to be notified if any Native American cultural resources or human remains were discovered during the undertaking.

FIELD SURVEY

Throughout the course of the field survey, no potential “historic properties” or “historical resources” were encountered within the project boundaries. Field observations have confirmed that the ground surface in virtually the entire APE has been disturbed in the past, and little vestige of the native landscape remains today. As mentioned above, all but 350 feet of the APE coincides with the rights-of-way of various paved public roads, with the project alignments lying entirely under existing pavement. The southernmost 350 feet of the APE, where the ground surface is visible, has also been subject to extensive disturbances, such as drainage improvement and landscaping by the property owner (Fig. 5).

While all of the roads in the APE were originally constructed more than 50 years ago, as working components of the modern transportation infrastructure their current appearance reflects the results of repeated upgrading and regular maintenance over the years, and none of them demonstrate any

particularly historical characteristics (Fig. 4). Numerous residential buildings constructed in the late historic period were also noted along the project alignments. However, since no aboveground construction is being proposed and all project-related work will occur below surface level, primarily within the existing roadbeds, this undertaking has little potential for any visual, atmospheric, or other indirect effects. Therefore, the nearby buildings were not included in the APE.

GEOARCHAEOLOGICAL ANALYSIS

Except for a small area of Pleistocene-age soils at the southern end near Miracle Hill, Proctor (1968) and Dibblee (2004) map the surface sediments in the entire APE as recent alluvial soils deposited by active channels emanating from the Little San Bernardino Mountains, such as Long Canyon to the east. The Pleistocene-age soils in the southern portion of the APE are known to be present on or very close to the surface. Deposited largely before widespread human habitation in this region, these soils are generally considered unlikely to contain deeply buried cultural materials.

The potential for encountering buried archaeological deposits in the Holocene-age alluvial and fluvial soils that cover the majority of the APE ranges from low to high. The APE lies at a higher elevation above the northwest-southeast trending Mission Creek branch of the San Andreas Fault, where geologic processes forced groundwater to the surface near Two Bunch Palms. Active springs led to the development of oasis lush with vegetation and full of wild game, which attracted human populations to settle the area over 2,000 years ago. These oases and the mesquite dunes that formed around them also provided shelter against the sometimes turbulent winds in the San Gorgonio Pass area, which was an important factor in the establishment of Native American settlements.

The APE lacked both perennial water sources and vegetation that could provide shelter from the wind and was therefore a less likely location for the establishment of human settlements. On the other hand, it was likely used as a resource gathering area where plant and animal resources were harvested for consumption and use at nearby habitation sites (e.g., Two Bunch Palms). As such, there is a low potential that buried prehistoric archaeological deposits would be encountered in most of the APE. Conversely, along Miracle Hill Road and the furthest western extent of Loma Vista Road, in close proximity to the Two Bunch Palms village site, the potential for encountering buried, intact prehistoric archaeological deposits appears to be high.

During the historic period, the APE was partially occupied by Cabot Yerxa's homestead with several buildings, including the Yerxa Trading Post identified by the 1940s USGS maps (Fig. 8). These buildings were evidently removed prior to the subdivision and residential development that occurred in the Miracle Hill area following WWII. At this time, the extent of ground disturbance resulting from these more recent developments is unclear, as is the depth at which native sediments may be encountered underneath the existing roadbeds. As such, it is possible that buried archaeological deposits associated with the early 20th century settlement may be encountered during construction in the southern portion of the APE, generally the area delineated by Hidalgo Street/Yerxa Road, Loma Vista Road, and Hermano Way.

In summary, there is a low potential for encountering buried archaeological deposits associated with prehistoric and historic land use and settlement in most of the APE. However, areas with a moderate to high potential for encountering such deposits are identified along Miracle Hill Road and the

western extent of Loma Vista Road, as well as in the southern portion of the APE, around Hidalgo Street/Yerxa Road, Loma Vista Road, and Hermano Way.

MANAGEMENT CONSIDERATIONS

APPLICABLE STATUTORY/REGULATORY FRAMEWORKS

The purpose of this study is to identify and evaluate any “historic properties” or “historical resources” that may exist within the APE of the proposed undertaking. “Historic properties,” as defined by the Advisory Council on Historic Preservation, include “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior” (36 CFR 800.16(1)). The eligibility for inclusion in the National Register is determined by applying the following criteria, developed by the National Park Service as per provision of the National Historic Preservation Act:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information important in prehistory or history. (36 CFR 60.4)

For CEQA-compliance considerations, the State of California’s Public Resources Code (PRC) establishes the definitions and criteria for “historical resources,” which require similar protection to what NHPA Section 106 mandates for historic properties. “Historical resources,” according to PRC §5020.1(j), “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 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))

Section 106 of the NHPA mandates that federal agencies take into account the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate any adverse effects on such properties (36 CFR 800.1(a)). Similarly, CEQA establishes 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 an historical resource would be impaired.”

DISCUSSION

In summary of the research results presented above, no “historic properties” or “historical resources,” as defined by the pertinent statutory and regulatory provisions, have been identified within the APE for this undertaking, and there is generally a low potential for encountering intact, potentially significant archaeological remains in subsurface deposits in most of the APE. However, two areas of moderate to high sensitivity for buried archaeological deposits were identified from the sources consulted.

As discussed above, historical maps indicate that buildings associated with Cabot Yerxa’s homestead and trading post once stood in or near the southern portion of the APE, in the area delineated by Hidalgo Street/Yerxa Road, Loma Vista Road, and Hermano Way. Meanwhile, existing archaeological records show the eastern boundary of Site 36-001246, known as the Two Bunch Palms village site, lies in close proximity to the portion of the APE along Miracle Hill Road and the furthest western extension of Loma Vista Road.

Yerxa’s homestead was evidently removed prior to the development of the Miracle Hill area, but it is possible that archaeological materials and/or features may still exist in this area at depth. Similarly, given the close distance the possibility that buried prehistoric cultural deposits associated with Site 36-001246 may extend into the APE cannot be ruled out. Any archaeological discovery that is potentially related to either Cabot Yerxa’s homestead or the Two Bunch Palms village site would require close examination under Criterion B/2 and/or Criterion D/4 listed above, for its possible association with a historical figure of recognized importance to the community and the potential to yield important information for the study of local history or prehistory.

CONCLUSION AND RECOMMENDATIONS

In conclusion, the undertaking as currently proposed will not cause an “adverse effect” or a “substantial adverse change” to any known “historic properties” or “historical resources,” as defined by Section 106 and CEQA, and the vertical extent of the APE below surface appears to be generally low in archaeological sensitivity along most of the proposed project alignments. However, the potential for encountering buried archaeological deposits of prehistoric or early historic origin in the vertical APE is considered to be moderate to high in the portion of the APE along Miracle Hill Road and the portion delineated by Hidalgo Street/Yerxa Road, Loma Vista Road, and Hermano Way.

Since the APE lies predominantly within the rights-of-way of paved public roadways, standard archaeological testing prior to the commencement of the undertaking does not appear to be a feasible approach to determine the presence or absence of subsurface cultural remains. In order to identify such remains in a timely manner and, if necessary, protect them from adverse effect from the undertaking, CRM TECH recommends that excavations and other ground-disturbing operations that will occur in the archaeologically sensitive area and reach beyond the roadbed fill—generally speaking the uppermost five feet of surface and near-surface soils—be conducted under the direction and close observation of a qualified archaeologist.

If any potentially significant cultural remains are encountered, the mechanical excavations should be halted or diverted while an archaeological team recovers the materials through procedures consistent to a standard archaeological testing program. These procedures should include, at a minimum, the following:

- Hand excavations in the immediate vicinity of unearthened cultural remains to remove all artifacts;
- Immediate notification of the Riverside County Coroner and consultation with the NAHC and local Native American groups if human remains or potential human remains are discovered, pursuant to California Health and Safety Code §7050.5 and Public Resources Code §5097.98;
- Cataloguing, laboratory analysis, and permanent curation of the recovered artifacts;
- Compilation of archaeological site records and/or site record updates, as appropriate, to document any archaeological discoveries in the California Historical Resources Inventory;
- Preparation of a final report as a comprehensive record of the research procedures and study findings.

Under this condition, the proposed undertaking may be cleared to proceed in compliance with Section 106 and CEQA provisions on cultural resources. No further cultural resources investigation is recommended for the rest of the undertaking unless project plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during earth-moving operations elsewhere within the APE, all work within a 100-foot radius 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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1939 *Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas*. San Diego Museum of Man Papers No. 3. San Diego, California.
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1992 *Gold Road to La Paz: An Interpretive Guide to the Bradshaw Trail*. Tales of the Mojave Road Publishing Company, Essex, California.
- Schaefer, Jerry
1994 The Challenge of Archaeological Research in the Colorado Desert: Recent Approaches and Discoveries. *Journal of California and Great Basin Anthropology* 16(1):60-80.
- Schaefer, Jerry, and Don Laylander
2007 The Colorado Desert: Ancient Adaptations to Wetlands and Wastelands. In T.L. Jones and K.A. Klar (eds.): *California Prehistory, Colonization, Culture, and Complexity*; pp. 247-258. Alta Mira Press, New York.
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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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1929 *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology 26. Reprinted by Malki Museum Press, Banning, Calif., 1972.
- Sutton, Mark Q.
1996 The Current Status of Archaeological Research in the Mojave Desert. *Journal of California and Great Basin Anthropology* 18:221-257.
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2007 Advances in Understanding Mojave Desert Prehistory. In T.L. Jones and K.A. Klar (eds.): *California Prehistory, Colonization, Culture, and Complexity*; pp. 229-246. Alta Mira Press, New York.
- USGS (United States Geological Survey, U.S. Department of the Interior)
1940 Map: Palm Springs, Calif. (15', 1:62,500); aerial photographs taken in 1940.

- 1941 Map: Edom, Calif. (15', 1:62,500); aerial photographs taken in 1941.
- 1958 Map: Seven Palms Valley, Calif. (7.5', 1:24,000); aerial photographs taken in 1956, field-checked in 1958.
- 1969 Map: San Bernardino, Calif. (1:250,000); 1958 edition revised.
- 1978a Map: Desert Hot Springs, Calif. (7.5', 1:24,000); 1955 edition photorevised in 1972, photoinspected 1978.
- 1978b Map: Seven Palms Valley, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1972, photoinspected in 1978.
- 1979 Map: Santa Ana, Calif. (1:250,000); 1959 edition revised.
- Warren, Claude N.
- 1984 The Desert Region. In Michael J. Moratto (ed.): *California Archaeology*; pp. 339-430. Academic Press, Orlando, Florida.
- Weide, Margaret L.
- 1973 Archaeological Inventory of the California Desert: A Proposed Methodology. Prepared for the U.S. Bureau of Land Management, California Desert Planning Program, Riverside, California.
- Wilke, Philip J.
- 1978 Late Prehistoric Human Ecology at Lake Cahuilla Coachella Valley, California. Contributions of the Archaeological Research Facility, Department of Anthropology, University of California, Berkeley.
- Wilke, Philip J., and David L. Weide
- 1976 *Background to Prehistory of the Yuha Desert Region*. Ballena Press Anthropological Papers No. 5. Menlo Park, California.
- Wilke, Philip J., and Meg McDonald
- 1989 Prehistoric Use of Rock-Lined Cache Pits: California Deserts and Southwest. *Journal of California and Great Basin Anthropology* 2(1):50-73.
- Wilke, Philip J., Meg McDonald, and Louis A. Payen
- 1986 Excavations at Indian Hill Rockshelter, Anza-Borrego Desert State Park, California 1984-1985. On file, California Department of Parks and Recreation, Cultural Resource Division, Sacramento.

**APPENDIX 1:
PERSONNEL QUALIFICATIONS**

**PRINCIPAL INVESTIGATOR/HISTORIAN
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/ARCHAEOLOGIST
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
John J. Eddy, M.A., RPA (Registered Professional Archaeologist)

Education

- 2013 M.A., Anthropology (Public Archaeology), California State University, Northridge.
 2003 B.A., Anthropology/History, California State University, San Bernardino.

Specialized Training and Certificates

- 2014 National Preservation Institute, Landscape Preservation: Advanced Tools for Managing Change, San Francisco.
 2014 National Preservation Institute, Landscape Preservation: An Introduction, San Francisco.
 2012 National Preservation Institute, Section 4(f) Compliance for Historic Properties, San Francisco.
 2010 Riverside County Cultural Sensitivity Training.
 2010 Caltrans Environmental Academy, Caltrans Environmental Staff Development, Irvine.
 2010 ESRI ArcGIS II, Caltrans District 8, San Bernardino.
 2009 Categorical Exclusions (NEPA) and Categorical Exemptions (CEQA), Caltrans Environmental Staff Development, Los Angeles.
 2008 Caltrans Cultural Resource Procedures and Use of the Programmatic Agreement, Caltrans Cultural Studies Office (CSO), Sacramento.
 2008 Advanced GIS Applications, California State University, Northridge.

Professional Experience

- 2019- Project Archaeologist, CRM TECH, Colton, California.
 2017–2018 Lecturer, Department of Anthropology, California State University, San Bernardino.
 2014-2017 Senior Archaeologist, Applied Earthworks, Hemet, California.
 2010-2014 Associate Archaeologist, Applied Earthworks, Hemet, California.
 2009-2010 Associate Environmental Planner (Archaeologist), Caltrans District 8, San Bernardino, California.
 2009-2010 Environmental Planner (Archaeologist), Caltrans District 8, San Bernardino, California.
 2007-2008 Project Archaeologist, CRM TECH, Riverside/Colton, California.
 2007 Archaeologist, Inyo National Forest, Bishop, California.
 2003-2007 Project Archaeologist/Native American Liaison, CRM TECH, Riverside, California.
 2000 Intern cultural anthropologist, California State University, San Bernardino;
 Genealogy of Gabrielino Band of Mission Indians; Dr. Alan Turner, Director.

Memberships

Register of Professional Archaeologists; Society for American Archaeology; Society for California Archaeology; Phi Kappa Phi.

PROJECT ARCHAEOLOGIST

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.
- Report writing, site record preparation, and supervisory responsibilities over all aspects of fieldwork and field crew. Manages and updates CRM TECH’s GIS database, produces maps and extracts data using GIS. Manages field crews for field surveys, testing and data recovery projects. Oversees work to ensure correct procedures.
- 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

**CORRESPONDENCE WITH
NATIVE AMERICAN REPRESENTATIVES***

* Fourteen local Native American representatives were contacted; a sample letter is included in this appendix.

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard, Suite 100
 West Sacramento, CA 95691
 (916)373-3710
 (916)373-5471 (Fax)
 nahc@nahc.ca.gov

Project: Proposed Mission Springs Water District Areas H and I Sewer Improvements Project (CRM TECH No. 3677)

County: Riverside

USGS Quadrangle Name: Seven Palms Valley, Calif.

Township 2 South **Range** 5 East **SB BM; Section(s):** 32

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA

Zip: 92324

Phone: (909) 824-6400

Fax: (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The primary component of the project is the installation of approximately 30,000 linear feet of 8-inch sewer pipeline within Sub Areas H and I of the Mission Springs Water District's service area in the City of Desert Hot Springs, Riverside County, California.

October 16, 2020

NATIVE AMERICAN HERITAGE COMMISSION

October 19, 2020

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Mission Springs Water District Areas H and I Sewer Improvements 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
Cultural Resources Analyst

Attachment



CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain
Apache

COMMISSIONER
Julie Tumamait-
Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

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

Native American Heritage Commission
Native American Contact List
Riverside County
10/19/2020

Item 9.

**Agua Caliente Band of Cahuilla
Indians**

Jeff Grubbe, Chairperson
5401 Dinah Shore Drive
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919
Cahuilla

**Los Coyotes Band of Cahuilla
and Cupeño Indians**

Shane Chapparosa, Chairperson
P.O. Box 189
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712
Cahuilla

**Agua Caliente Band of Cahuilla
Indians**

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

**Morongo Band of Mission
Indians**

Robert Martin, Chairperson
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov
Cahuilla
Serrano

**Augustine Band of Cahuilla
Mission Indians**

Amanda Vance, Chairperson
P.O. Box 846
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com
Cahuilla

**Morongo Band of Mission
Indians**

Denisa Torres, Cultural Resources
Manager
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov
Cahuilla
Serrano

**Cabazon Band of Mission
Indians**

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

**Quechan Tribe of the Fort Yuma
Reservation**

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

Cahuilla Band of Indians

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

**Quechan Tribe of the Fort Yuma
Reservation**

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

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 Mission Springs Water District Areas H and I Sewer Improvements Project, Riverside County.

**Native American Heritage Commission
Native American Contact List
Riverside County
10/19/2020**

Item 9.

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

**Soboba Band of Luiseno
Indians**

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

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

**Soboba Band of Luiseno
Indians**

Scott Cozart, Chairperson
P. O. Box 487
Cahuilla
Luiseno
San Jacinto, CA, 92583
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-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
jmauck@sanmanuel-nsn.gov

**Torres-Martinez Desert Cahuilla
Indians**

Michael Mirelez, Cultural
Resource Coordinator
P.O. Box 1160
Cahuilla
Thermal, CA, 92274
Phone: (760) 399 - 0022
Fax: (760) 397-8146
mmirelez@tmdci.org

**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

**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

**Serrano Nation of Mission
Indians**

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

**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

**Serrano Nation of Mission
Indians**

Wayne Walker, Co-Chairperson
P. O. Box 343
Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.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 Mission Springs Water District Areas H and I Sewer Improvements Project, Riverside County.

October 21, 2020

RE: Mission Springs Water District Areas H and I Sewer Improvements Project
Approximately 5.68 Linear Miles of Sewer Alignment
In the City of Desert Hot Springs, Riverside County, California
CRM TECH Contract #3677

Dear Tribal Representative:

I am writing to bring your attention to an ongoing CEQA-Plus study for the proposed project referenced above, which entails the installation of approximately 5.68 linear miles of sewer pipeline. The Area of Potential Effects (APE) for the undertaking is mainly confined within the existing street rights-of-way in the residential neighborhoods within Sub Areas H and I of the Mission Springs Water District's (MSWD) service area in the City of Desert Hot Springs, Riverside County, California. The accompanying map, based on the USGS Seven Palms Valley, Calif., 7.5' quadrangle, depict the APE within Section 32, T2S R5E, SBBM.

In a letter dated October 19, 2020, the Native American Heritage Commission reports that the results of the Sacred Lands File search were negative but recommends that local Native American groups be contacted for further information (see attached). Therefore, as part of the cultural resources study for this project, I am writing to request your input on potential Native American cultural resources in or near the APE.

Please respond at your earliest convenience if you have any specific knowledge of sacred/religious sites or other sites of Native American traditional cultural value in or near the APE, or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agencies, namely the MSWD and the State Water Resource Board.

We would also like to clarify that, as the cultural resources consultant for the project, CRM TECH is not conducting the government-to-government consultations, which will be handled by the lead agency. The purpose of this letter is to seek any information that you may have to help us determine if there are cultural resources in or near the project area that we should be aware of and to help us assess the sensitivity of the APE. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo
Project Archaeologist/Native American liaison
CRM TECH
Email: ngallardo@crmtech.us

Encl.: NAHC response letter and project location map



03-067-2020-001

October 21, 2020

[VIA EMAIL TO:ngallardo@crmtech.us]
CRM TECH
Ms. Nina Gallardo
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Re: MSWD Areas H and I Sewer Improvements Project

Dear Ms. Nina Gallardo,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Areas H and I Sewer Improvements project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area. For this reason, the ACBCI THPO requests the following:

- *A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.
- *A copy of the records search with associated survey reports and site records from the information center.
- *Copies of any cultural resource documentation (report and site records) generated in connection with this project.
- *The presence of an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer and the Agua Caliente Tribal Historic Preservation Office.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6956. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION



Item 9.

Lacy Padilla
Archaeologist
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

From: Ryan Nordness <Ryan.Nordness@sanmanuel-nsn.gov>
Sent: Wednesday, October 21, 2020 5:03 PM
To: ngallardo@crmtech.us
Cc: Jessica Mauck
Subject: RE: Mission Springs Water District Area H and I Sewer Improvements Project, Approximately 5.68 Linear Miles of Sewer Alignment in the City of Desert Hot Springs, Riverside County, California

Hey Nina,

Thanks for reaching out to the San Manuel Band of Mission Indians (SMBMI) for the information request regarding this project. Upon reviewing the provided documents that were received on October 21st, 2020 I have found that this project is outside of Serrano ancestral territory. As such, SMBMI will not be requesting to receive consulting party status with the lead agency or to participate in the scoping, development, or review of documents created pursuant to legal and regulatory mandates.

Additionally, would you mind replacing your POC from Jessica to myself in regards to your tribal email list. Thanks.

Kind regards,

Ryan Nordness
 Cultural Resource Analyst
 San Manuel Band of Mission Indians
 O: (909) 864-5050 x50-2022
 Internal: 50-2022
 M: 909-838-4053
 26569 Community Center Dr Highland CA 92346

From: Stapp, Judy <jstapp@cabazonindians-nsn.gov>
Sent: Thursday, October 22, 2020 3:31 PM
To: ngallardo@crmtech.us
Subject: Re: NA Scoping Letter for the Proposed MSWD Areas H and I Sewer Improvements Project in the City of Desert Hot Springs; CRM TECH #3677

Dear Ms. Gallardo,

The Cabazon Band of Mission Indians has no specific information on the above referenced project indicating that it may be a sacred site or other site of Native American traditional Cultural value.
 Best regards,

Judy Stapp
 Director of Cultural Affairs



November 25, 2020

Attn: Nina Gallardo, Project Archaeologist/Native American Liaison
CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

RE: Mission Springs Water District Areas H and I Sewer Improvements Project – City of Desert Hot Springs, Riverside County, CA – CRM TECH Contract #3677

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. This project location is in proximity to known sites, is a shared use area that was used in ongoing trade between the tribes and is considered to be culturally sensitive by the people of Soboba.

Soboba Band of Luiseño Indians is requesting the following:

1. To initiate a consultation with the project proponents and lead agency.
2. The transfer of information to the Soboba Band of Luiseno Indians regarding the progress of this project should be done as soon as new developments occur.
3. Soboba Band of Luiseño Indians continues to act as a consulting tribal entity for this project.
4. Working in and around traditional use areas intensifies the possibility of encountering cultural resources during the construction/excavation phase. For this reason, the Soboba Band of Luiseño Indians requests that Native American Monitor(s) from the Soboba Band of Luiseño Indians Cultural Resource Department to be present during any ground disturbing proceedings. Including surveys and archaeological testing.
5. Request that proper procedures be taken, and requests of the tribe be honored (Please see the attachment)

Multiple areas of potential impact were identified during an in-house database search. Specifics to be discussed in consultation with the lead agency.

Sincerely,

Joseph Ontiveros, Tribal Historic Preservation Officer
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

NOV 30 2020

Cultural Items (Artifacts). Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer should agree to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

The Developer should waive any and all claims to ownership of Native American ceremonial and cultural artifacts that may be found on the Project site. Upon completion of authorized and mandatory archeological analysis, the Developer should return said artifacts to the Soboba Band within a reasonable time period agreed to by the Parties and not to exceed (30) days from the initial recovery of the items.

Treatment and Disposition of Remains.

A. The Soboba Band shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity.

B. The Soboba Band, as MLD, shall complete its inspection within twenty-four (24) hours of receiving notification from either the Developer or the NAHC, as required by California Public Resources Code § 5097.98 (a). The Parties agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes.

C. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The Soboba Band, as the MLD in consultation with the Developer, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains.

D. All parties are aware that the Soboba Band may wish to rebury the human remains and associated ceremonial and cultural items (artifacts) on or near, the site of their discovery, in an area that shall not be subject to future subsurface disturbances. The Developer should accommodate on-site reburial in a location mutually agreed upon by the Parties.

E. The term "human remains" encompasses more than human bones because the Soboba Band's traditions periodically necessitated the ceremonial burning of human remains. Grave goods are those artifacts associated with any human remains. These items, and other funerary remnants and their ashes are to be treated in the same manner as human bone fragments or bones that remain intact

Coordination with County Coroner's Office. The Lead Agencies and the Developer should immediately contact both the Coroner and the Soboba Band in the event that any human remains are discovered during implementation of the Project. If the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c).

Non-Disclosure of Location Reburials. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r). Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer agrees to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.



Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba, the Mission Springs Water District, as well as hired consultant (CRM TECH). No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.

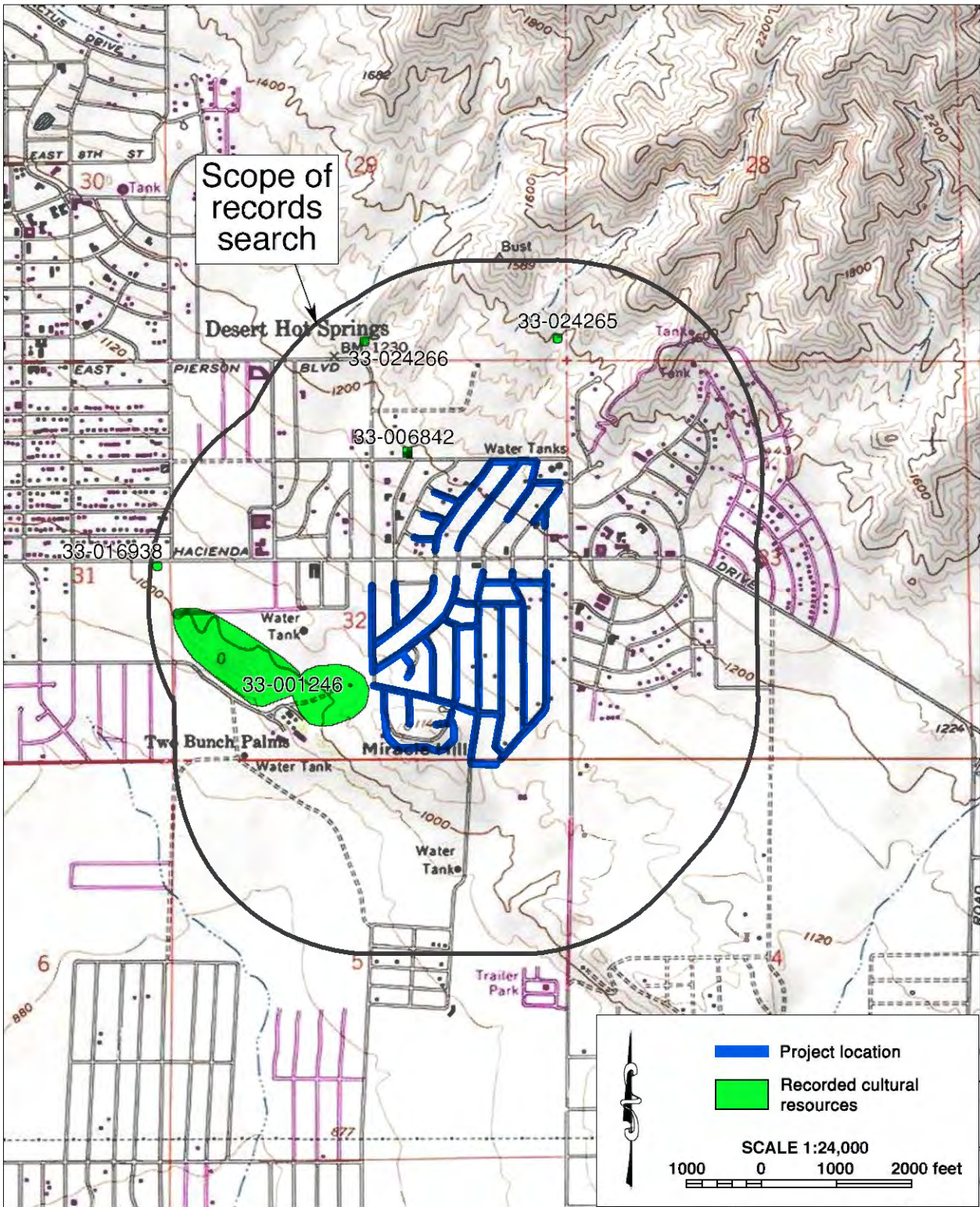
TELEPHONE LOG

Name	Tribe/Affiliation	Telephone Contacts	Note
Patricia Garcia-Plotkin, Tribal Historic Preservation Officer	Agua Caliente Band of Cahuilla Indians	None	Lacy Padilla, Archaeologist with the Tribal Historic Preservation Office, responded in a letter dated October 21, 2020 (copy attached).
Amanda Vance, Chairperson	Augustine Band of Cahuilla Mission Indians	2:05 pm, November 6, 2020; 9:18 am, November 17, 2020	Left messages; no response to date.
Judy Stapp, Director of Cultural Affairs	Cabazon Band of Mission Indians	None	Ms. Stapp responded in an email dated October 22, 2020 (copy attached).
BobbyRay Esparza, Cultural Director	Cahuilla Band of Indians	2:08 pm, November 6, 2020; 9:22 am, November 17, 2020	Mr. Esparza stated that the tribe would defer to other tribes in closer proximity to the APE.
Ray Chapparosa, Chairman	Los Coyotes Band of Mission Indians	2:11 pm, November 6, 2020; 9:27 am, November 17, 2020	Dorothy Willis of the tribe's Environmental Protection Department stated that the tribe had no comments on this project.
Ann Brierty, Tribal Historic Preservation Officer	Morongo Band of Mission Indians	2:18 pm, November 6, 2020; 9:32 am, November 17, 2020	Left messages; no response to date.
John Gomez, Jr., Cultural Resource Coordinator	Ramona Band of Cahuilla Indians	2:31 pm, November 6, 2020; 9:37 am, November 17, 2020	Left messages; no response to date.
Jessica Mauck, Director of Cultural Resources Management	San Manuel Band of Mission Indians	None	Ryan Nordness, Cultural Resource Analyst, responded by e-mail on October 21, 2020 (copy attached).
Lovina Redner, Chairperson	Santa Rosa Band of Cahuilla Indians	2:32 pm, November 6, 2020; 9:40 am, November 17, 2020	Left messages; no response to date.
Mark Cochrane, Co-Chairperson	Serrano Nation of Mission Indians	2:36 pm, November 6, 2020	Mr. Cochrane requested to be notified immediately if any Native American cultural resources or human remains were discovered during ground-disturbing activities.
Wayne Walker, Co-Chairperson	Serrano Nation of Mission Indians	None	Mark Cochrane responded on behalf of the tribe (see above).
Joseph Ontiveros, Cultural Resources Director	Soboba Band of Luiseño Indians	2:39 pm, November 6, 2020; 10:18 am, November 17, 2020	Mr. Ontiveros responded in a letter dated November 25, 2020 (copy attached).
Michael Mirelez, Cultural Resources Coordinator	Torres Martinez Desert Cahuilla Indians	2:44 pm, November 6, 2020; 10:23 am, November 17, 2020	Left messages; no response to date.
Anthony Madrigal, Jr., Tribal Historic Preservation Officer	Twenty-Nine Palms Band of Mission Indians	2:52 pm, November 6, 2020	Sarah Bliss, Cultural Resources Manager, stated that the tribe had no information on specific cultural resources in the APE, but the project location was in the tribe's area of interest. She requested notifications of project progress and a copy of the completed cultural resources study from the MSWD during future government-to-government consultations.

APPENDIX 3

**KNOWN CULTURAL RESOURCE
WITHIN RECORDS SEARCH SCOPE**

(Confidential)



Locations of previously identified cultural resources within the half-mile scope of the records search

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 33-1246
HRI # _____
Trinomial CA-RIV-1246 Update
NRHP Status Code _____

Other Listings _____
Review Code _____ Reviewer RECEIVED Date 10/7/04

Page 1 of 3 *Resource Name or #: (Assigned by recorder) _____

P1. Other Identifier: _____
*P2. Location: Not for Publication Unrestricted
*a. County Riverside and _____ (P2b and P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' quad Seven Palms Valley Date 1955 (Photorevised 1978)
Two Bunch Palms Road, between Verbena and _____
c. Address Miracle Hill Road City Desert Hot Springs ZIP 3756598
11S 0547487
d. UTM (Give more than one for large and/or linear resources) Zone 11S 0547471 mE / 3756600 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) South side of Two Bunch Palms Rd, Northwest side of Miracle Hill, near private property line, east of Two Bunch Palms Spa. Site "B" is 46 meters southwest from fire hydrant next to street and 24.5 meters west from the "Private Property No Trespassing" sign. Site is eroding out of dunes.

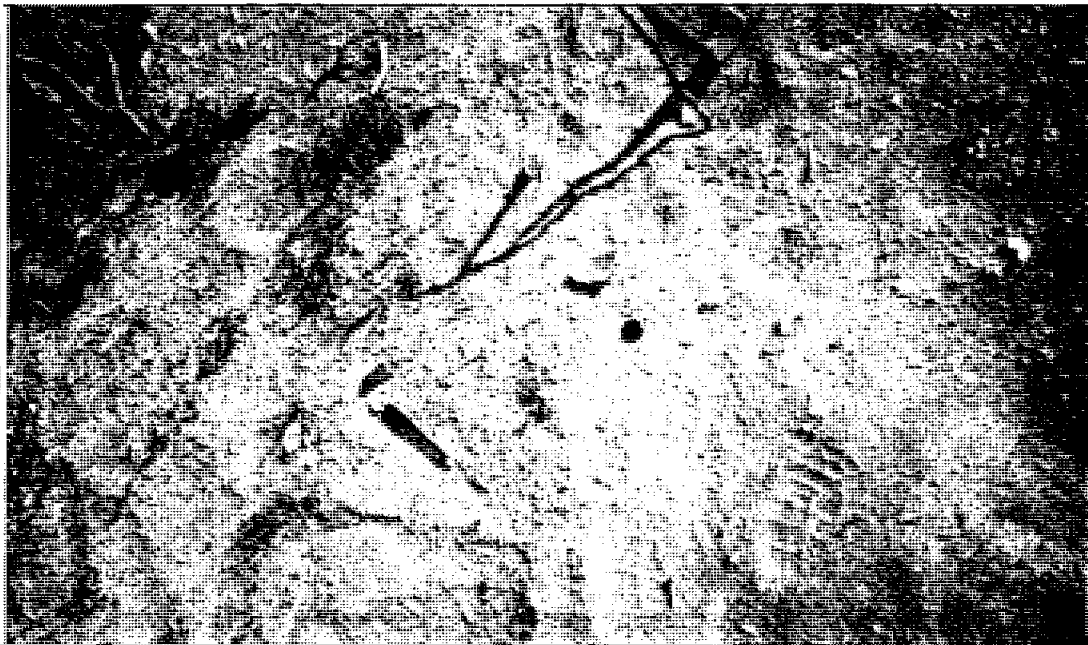
*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Four pottery shard scatters/concentrations, 9 pieces, one section of pot lip, another with distinct finger indentations from the maker.

*P3b. Resource Attributes: (List attributes and codes) AP3.Ceramic Scatter.

*P4. Resources Present: Building Structure Object Site District
 Element of District Other (Isolates, etc.): _____

P5a. Photo or drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, data, accession #)



*P6. Date Constructed/Age and Sources: Historic Prehistoric Both

*P7. Owner and Address: _____

*P8. Recorded by: Heidi Sellers
LSA Associates, Inc.
1650 Spruce St, 5th Floor
Riverside, CA 92507

*P9. Date recorded: 10/7/04

*P10. Survey Type: (Describe) Construction monitoring

*P11. Report citation: (Cite survey report and other sources or enter "none.") _____

Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (list): _____

State of California Department of Parks and Recreation
Division of Cultural Resources
Cultural Resources Section

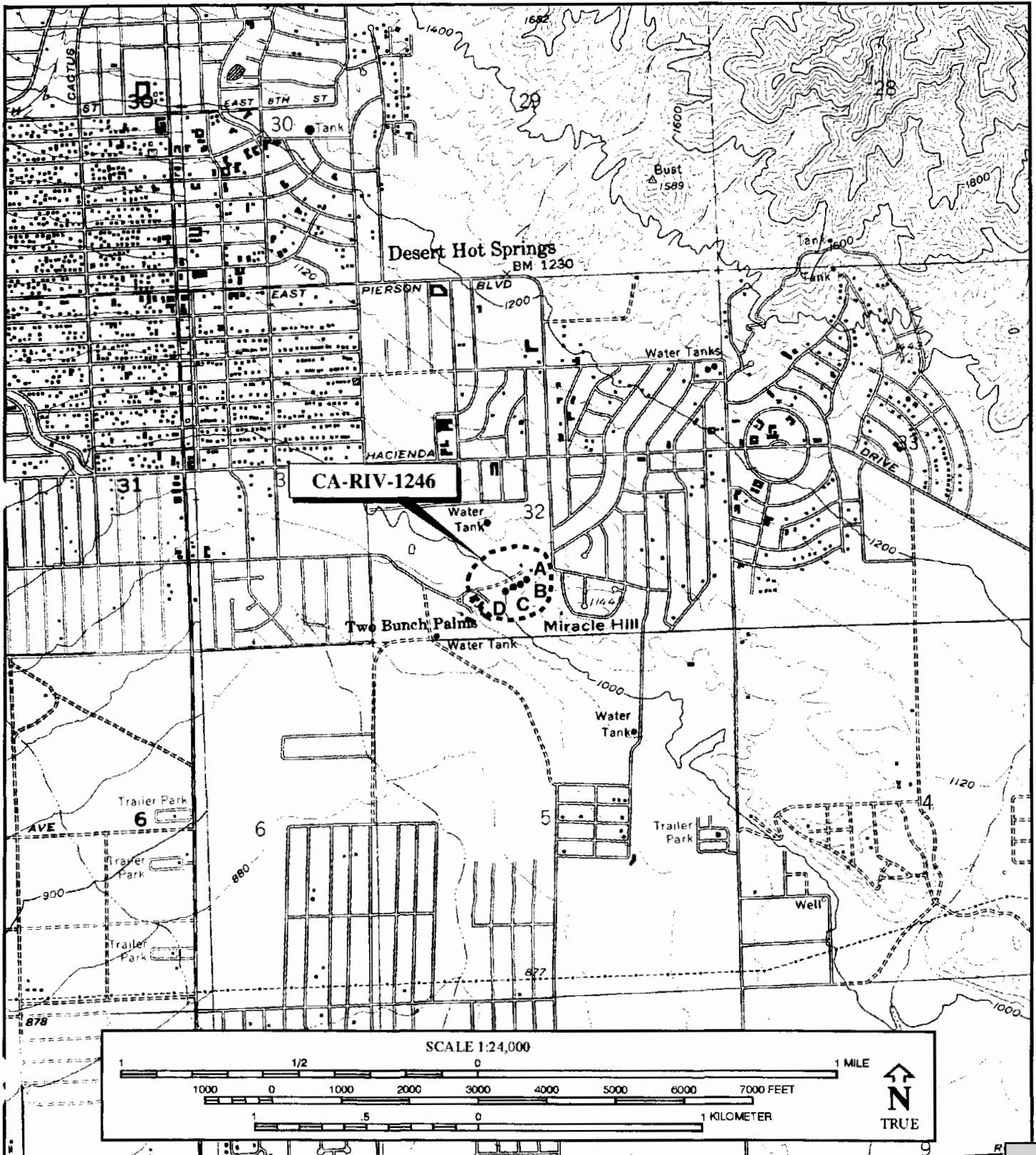
Project
Date
Circulation

USGS 7.5' Quad, Seven Palms Valley

*Map Name: and Desert Hot Springs, California

*Scale: 1:24000

*Date of Map: Photoinspected 1978



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary # _____
Trinomial _____

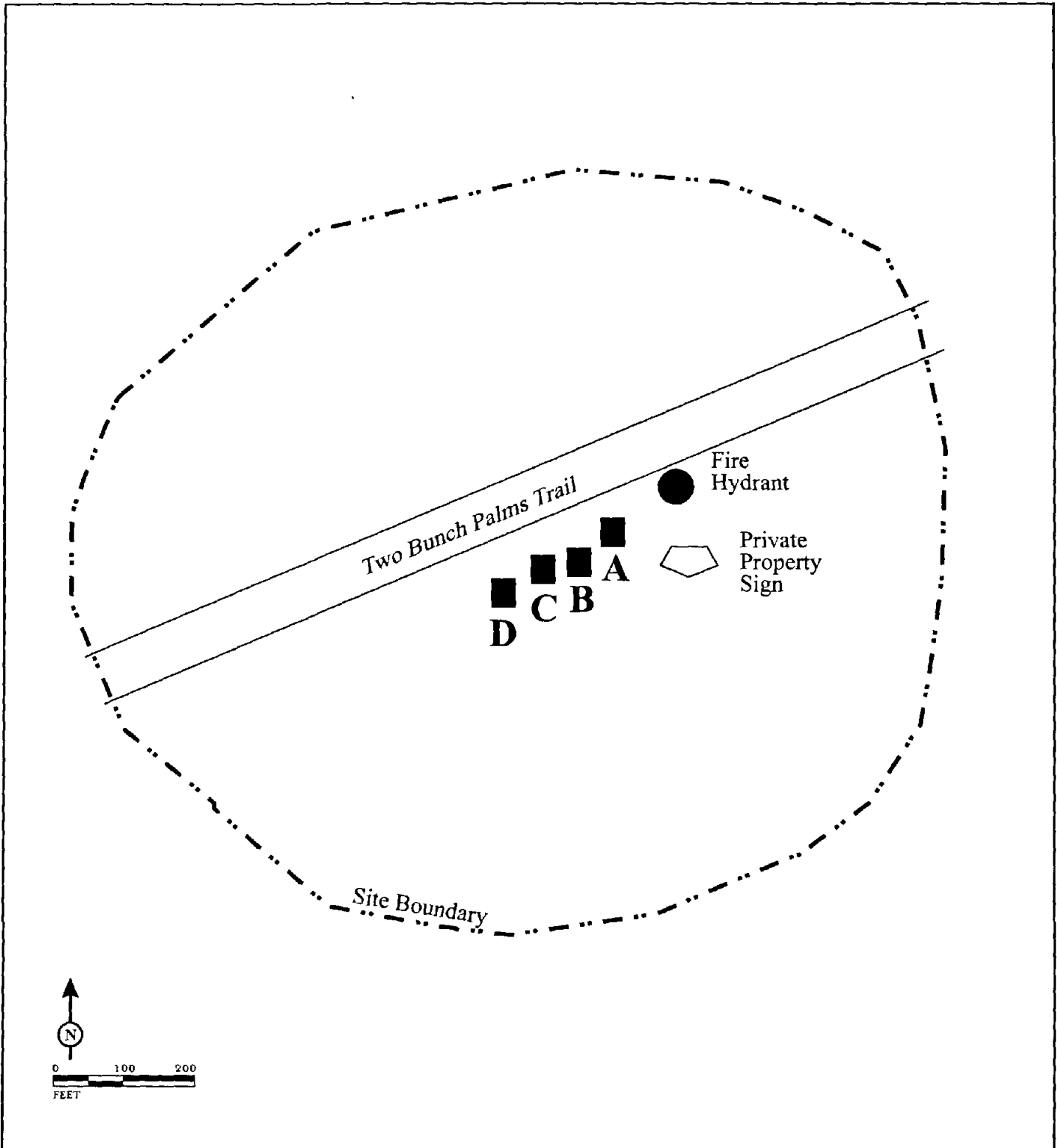
Page 3 of 3

*Resource Name or # (Assigned by recorder)

CA-RIV-1246 Update

Drawn By: Heidi Sellers

Date: 10/07/04



R:\CHW430\Graphics\Cultural\DPR_sketch1246.cdr (12/16/04)

ARCHAEOLOGICAL SITE SURVEY RECORD

Item 9.

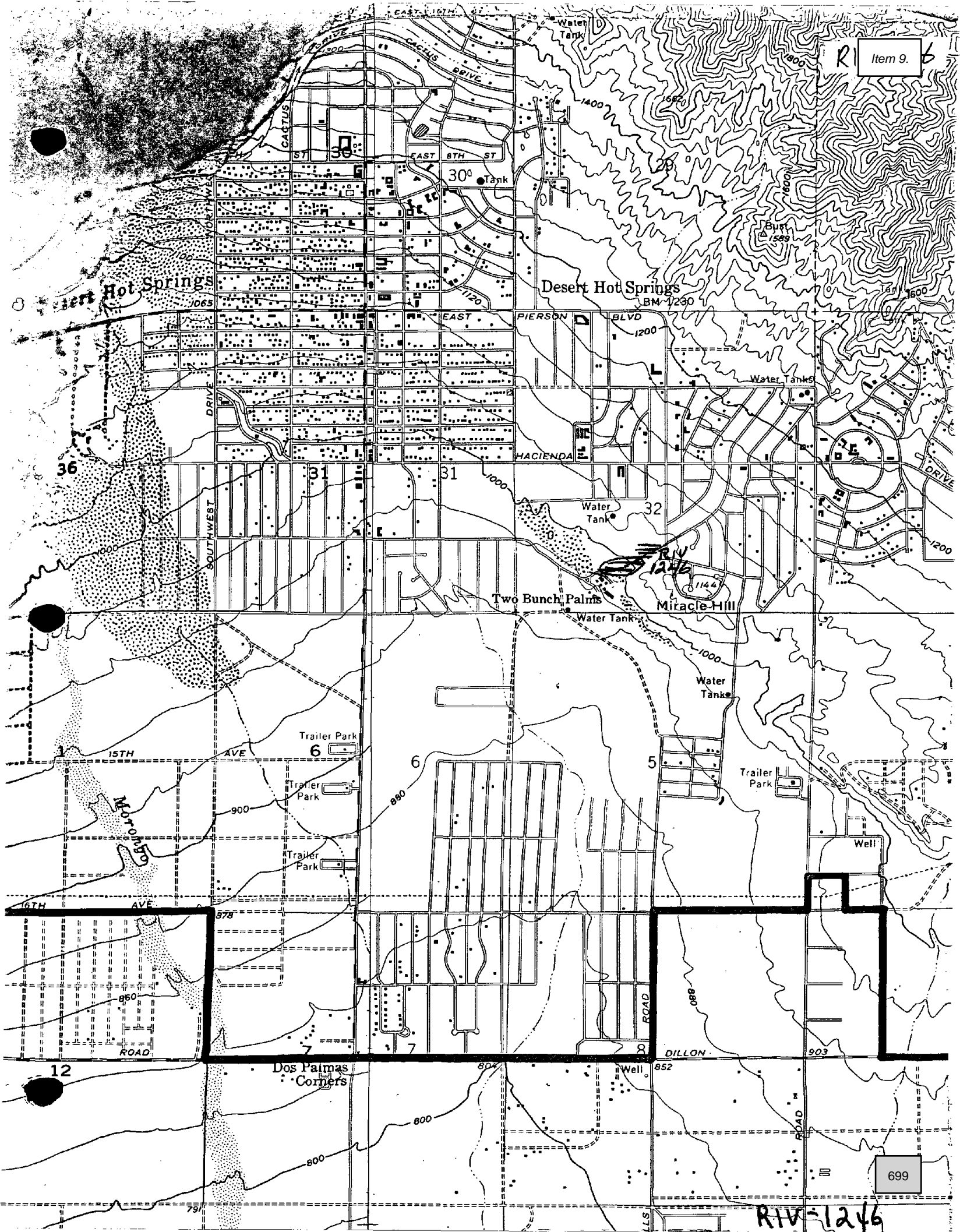
UTM: Zone 11-3756400/547600

SITE No. Riv 1246

1. Previous Site Designation Two Bunch Palms 2. Temporary Field No. SBCM-171
3. USGS Quad Two Bunch Palms XX 7.5 15 Year 1958
5. Twp. 2S Range 5E ; N 1/2 $\frac{1}{4}$ of SE 1/4SW $\frac{1}{4}$ of Sec. 32
6. Location Both sides of the road leading to Two Bunch Palms from Desert Hot Springs on the northwest side of Miracle Hill
7. Contour 1040 ⁺ ft. 8. Owner & Address _____
9. Prehistoric XX Ethnographic XX Historic _____ 10. Site Description Late Desert Cahuilla, in blowout dunes along wash area
11. Area 750 x 500 meters, _____ square meters. 12. Depth of Midden surface/unknown
13. Site Vegetation mesquite Surrounding Vegetation same
14. Location & Proximity of Water intermittent stream, hot springs
15. Site Soil sandy Surrounding Vegetation _____
16. Previous Excavation none
17. Site Disturbance due to sandblowout and wash water, road through site
18. Destruction Possibility due to ecological conditions and building in the area
19. Features fire cracked rocks
20. Burials possible
21. Artifacts pottery, TCB point, bone material (some burnt), metate fragment, mano, flakes
22. Faunal Remains yes UTM 547380ME 3756440MN
547600ME 3756280MN
547800ME 3756420MN
23. Comments site is eroding out of dunes 547600ME 3756580MN
CENTER 547600ME 3756420MN
24. Accession No. 171 25. Sketch Map _____ by _____ where _____
26. Date Recorded 10/1/77 27. Recorded by G. A. Smith
28. Photo Roll No. _____ Frame No. _____ Film Type(s) _____ Taken By _____
29. % Destroyed 10 How road Test Excavated _____ % if known _____
30. National Register Status; Listed _____ Potential _____ No Determination XX
Nominated _____ Ineligible _____
31. State Historical Landmark (No.) _____ Point of Historical Interest _____
SPECIAL ATTRIBUTES (Place and X in only those spaces which pertain to the site)
32. Midden/Habitation Debris XX, Lithic and/or Ceramic Scatter XX
33. Bedrock Mortars/Milling Surfaces _____ Petroglyphs/Pictographs _____, Stone Features _____
34. Burials _____, Caches _____ Hearths/Roasting Pits XX Housepits _____ Structure Remains _____
35. Underwater _____ Open Air XX Rockshelter _____ Cave _____ Quarry _____ Trails _____

REMARKS _____

RI Item 9. 6



699

RIV 1246

Ser. No. 33-2240-11

HABS _____ HAER _____ NR 4d SHL _____ Loc _____ Item 9.

UTM: A _____ B _____
C _____ D _____

11/547940/3757420

HISTORIC RESOURCES INVENTORY

IDENTIFICATION

1. Common name: Cabot's Indian Pueblo 33-6842
2. Historic name: Cabot's Indian Pueblo
3. Street or rural address: 67616 Desert View
City Desert Hot Springs Zip 92240 County Riverside
4. Parcel number: 642-060-013-0
5. Present Owner: Quadric, Inc. Address: P.O. Box 1206
City Desert Hot Springs Zip 92240 Ownership is: Public _____ Private X
6. Present Use: museum Original use: residential

DESCRIPTION

- 7a. Architectural style: Pueblo Revival Hopi-Style
- 7b. Briefly describe the present *physical description* of the site or structure and describe any major alterations from its original condition:

Irregular in plan, four stories in height with flat roofs at many different levels, the Hopi-style Indian Pueblo at 67616 Desert View Avenue has 35 rooms (none on the same level as any other), 150 windows (made from scrap glass), 65 doors (17 of them go outdoors), genuine vigas (made from the telegraph poles of the old Los Angeles to Yuma line), wall studs made from railroad ties (from the route abandoned when the Salton Sea flooded), adobe brick and wood frame stucco construction, planks from deserted homestead cabins and Colorado River aqueduct structures, and thousands of bent nails from demolished shacks. A very unique air-conditioning system of vents and shafts built into the walls resembling missing boards and unfinished corners keeps every room in the Pueblo at a constant, even temperature.



8. Construction date: 1941
Estimated _____ Factual
9. Architect unknown
10. Builder unknown
11. Approx. property size (in feet)
Frontage _____ Depth _____
or approx. acreage 4.77
12. Date(s) of enclosed photograph(s)
January 26, 1983
14-208-06-05

53-6842

- 13. Condition: Excellent Good _____ Fair _____ Deteriorated _____ No longer in existence _____
- 14. Alterations: minor
- 15. Surroundings: (Check more than one if necessary) Open land _____ Scattered buildings Densely built-up _____ Residential Industrial _____ Commercial _____ Other: _____
- 16. Threats to site: None known Private development _____ Zoning _____ Vandalism _____ Public Works project _____ Other: _____
- 17. Is the structure: On its original site? Moved? _____ Unknown? _____
- 18. Related features: unique construction

SIGNIFICANCE

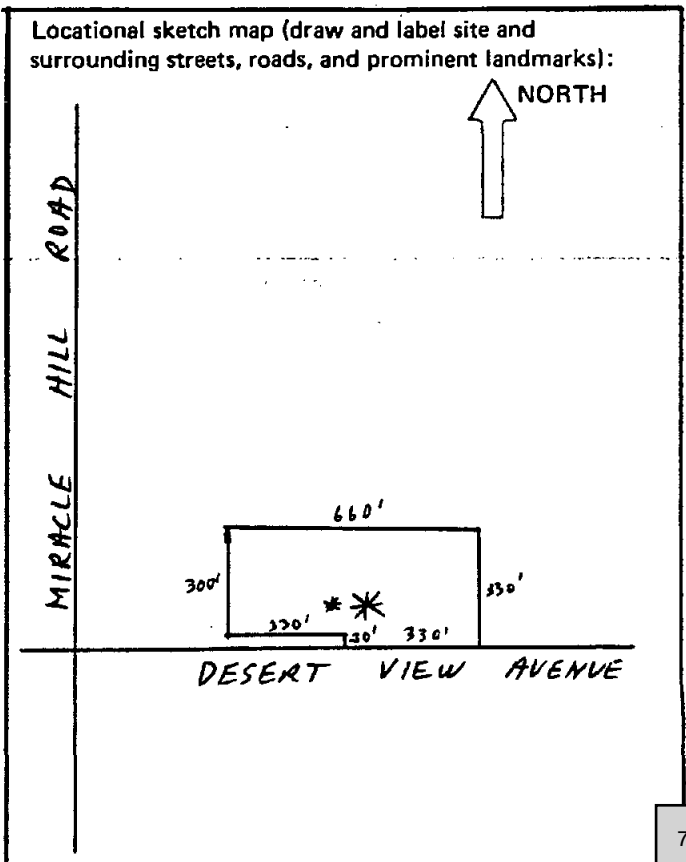
19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site.)

Cabot's "Old Indian Pueblo Museum" is neither old, nor Indian, but does resemble a pueblo. It is Riverside County's Point of Historical Interest No. 054. A plaque placed at the site on April 26, 1981, states: "Cabot Yerxa, veteran of the Alaska Gold Rush of 1898, homesteaded 160 acres in 1913. By a hand-dug well, he discovered the extensive supply of underground hot water that in 1933 became the basis for the start of Desert Hot Springs. In 1941 he began this Pueblo-inspired home, the construction of which was his single-minded devotion until he died in 1965.

- 20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)
 Architecture 3 Arts & Leisure 2
 Economic/Industrial _____ Exploration/Settlement 1
 Government _____ Military _____
 Religion _____ Social/Education _____

21. Sources (List books, documents, surveys, personal interviews and their dates). County Records

22. Date form prepared May 19, 1983
 By (name) R.D. Adams
 Organization Riv. Co. Historical Commission
 Address: P.O. Box 3507
 City Riverside Zip 92519
 Phone: 787-2551




STATE OF CALIFORNIA—RESOURCES AGENCY
DEPARTMENT OF PARKS AND RECREATION
POINT OF HISTORICAL INTEREST

DO NOT WRITE IN THESE SPACES
Reg. No. RIV-054
Date 12-19-80
By [Signature] Item 9.

County Riverside Name Yerxa's Discovery 33-6842
Location To be commemorated at Cabot's "Old Indian Pueblo Museum,"
67616 E. Desert View Avenue, Desert Hot Springs, California 92240

Historical Significance:
Cabot Yerxa, veteran of the Alaska gold rush of 1898, homesteaded 160 acres near here in 1913. By a hand-dug well, he discovered the extensive supply of underground hot water that in 1933 became the basis for the start of Desert Hot Springs. In 1941 he began this pueblo-inspired home, the construction of which was his single-minded devotion until he died in 1965.


THIS POINT OF HISTORICAL INTEREST IS NOT A STATE REGISTERED HISTORICAL LANDMARK.

RECOMMENDED: <u>[Signature]</u> Signature—Chairman, County Board of Supervisors	APPROVED: <u>[Signature]</u> Signature—Chairman, Historical Landmarks Advisory Committee
Date <u>JUN 24 1980</u> <u>DONALD D. SULLIVAN, Clerk</u> by <u>[Signature]</u> Deputy	Date <u>November 14, 1980</u>

DPR-147 (4-68) 68255-768 4-66 5M TRIP © OSP

33-6842

33-6842

POINT OF HISTORICAL INTEREST NOMINATION

TITLE: Cabot Yerxa, Desert Hot Springs Homesteader

LOCATION: To be commemorated at Cabot's "Old Indian Pueblo Museum"
67616 E. Desert View Avenue
Desert Hot Springs, CA 92240

SPONSOR: City Council
City of Desert Hot Springs
11-711 West Drive
Desert Hot Springs, CA 92240

SIGNIFICANCE:

Cabot Yerxa, who was born June 11, 1883, in Hamilton, North Dakota, came to the area now known as Desert Hot Springs as a homesteader in 1913. He and a friend met two prospectors named Dutch Frank and "Old Man Coolidge" in a Banning bar who told of a mudhole near Two Bunch Palms in the upper Coachella Valley, a site which had been noted in the 1850's by a U.S. Government survey team which was scouting a potential wagon train route through the area. The trail was later located elsewhere. Yerxa located Two Bunch Palms and homesteaded 160 adjacent acres. He first camped on the land but soon built a cabin, partially dug into the side of a hill, which he called The Eagle's Nest.

Yerxa had to haul his water to Eagle's Nest, a distance of seven miles from beyond the Southern Pacific stop at Garnett. This was a difficult task, so Yerxa set out to develop his own well. From a local elderly Indian, Yerxa learned of a well that had once existed near the mudhole at Two Bunch Palms. This well had long been abandoned, but Yerxa located it, dug it out, and found water that was suitable for drinking after boiling. However, this well was not on Yerxa's land,

so he decided to develop a new one. He dug a shaft 32 by 24 inches with a short-handled shovel, timbering as he went. About thirty feet in he was stopped by a two-inch layer of hot rock. Yerxa broke through the rock and continued to dig, noticing the temperature in the shaft rising. He struck water at about 40 feet that was so hot he was unable to work in the well in rubber boots alone. Yerxa later reported that he had to cool two oil cans of the hot water overnight so that he could soak his feet in the cold water while digging during the day. The temperature of the water is reported in various accounts as being 98 to 170 F. Because Yerxa found hot water on one side of this hill and cold on the other, he named his place Miracle Hill.

The location of the spring which Yerxa found was undoubtedly already known to local Native American groups. Hot water springs had long supplied their bathing pools. Yerxa was the first Anglo to discover and recognize the possible commercial potential of this spring. He was unable to interest backers at the time of his discovery, however. Palm Springs bankers feared competition for their own developing resort, and Los Angeles investors considered the hot springs too far off the beaten path.

Unable to develop his discovery, Yerxa "proved up" his homestead, making the necessary improvements in order to obtain title. He then left the area. Not until 1933 was Yerxa's spring developed into the Desert Hot Springs resort by L.W. Coffee, who learned the location of the well from Yerxa.

Yerxa returned to Desert Hot Springs in 1941 and began construction of the pueblo-inspired home which today houses a museum and art gallery. Yerxa's home is an interesting architectural creation of the modern period, but his primary historical significance is as the homesteader who rediscovered and utilized the hot water springs that led to the eventual development of the City of Desert Hot Springs.

BIBLIOGRAPHY:

Coffee, L.W., "Desert Hot Springs -- Why?", Desert Sentinel, February 21, 1974.

Cooper, Charles W., The A. Wardman Story, Whittier, California: Whittier College, 1961.

James, Harry C., The Cahuilla Indians, Banning, California: Malki Museum Press, 1960.

Langley, Burton, Letter to Dr. John R. Brumgardt, Riverside, California, September 25, 1974.

Roy, George Merrill, "Cabot's Old Indian Pueblo", Riverside Press Enterprise, October 16, 1961.

Yerxa, Cabot, "Area Has Interesting Past", Desert Sentinel, November 20, 1958.

Yerxa, Cabot, Notes in possession of Rodney Yerxa, Cabot Yerxa's son, obtained 1974.

PS:jlh
5/30/80

Money was scarce in those early days; in fact, it was nonexistent. However, Yerxa finally came into possession of \$10 and he purchased a black burro which he named "Merry Xmas".

EAGLES NEST CABIN

In 1914 Yerxa very laboriously dug a large hole with pick and shovel on the crown of Miracle Hill, the location of which could not be seen.

Then in the hole he had made, was constructed the first permanent building in the area -- Eagles Nest Cabin -- 10 by 20 feet in size, built of stone. Cabot and Merry Xmas would walk seven miles over the desert to the railroad station at Garnet. Here they each got a drink of water. Then a 100 pound sack of cement was placed on the back of each, and they walked back to the homestead cabin, another seven miles. Gradually the cement, lumber, rocks and sand and water were carried to the top of Miracle Hill and Merry Xmas was turned loose on the desert to have a burro's holiday.

Eagles Nest Cabin had one door and one window out to the world; the rest was practically underground. A fireplace in one end added cheer and warmth. The main idea was to get out of the wind and to make safe storage for belongings.

Every few days Merry Xmas would climb the hill about noon time, after having eaten wild grass or sage brush, and lay down to rest. But when Yerxa opened his paper bag of lunch, or fried a little bacon or beans over a campfire, Merry Xmas stepped right forward and was given half the lunch. It would eat meat, potatoes, beans, bread, anything at all. It would chew tobacco, too, and could drink water out of a bottle. Merry Xmas was different from the average run of burros and became famous because of its unusual characteristics and intelligence. It was stolen while Yerxa was a soldier in World War I.

All went well for years, but the inevitable happened. Eagles Nest Cabin was discovered by vandals, then made a shambles, and later it was wrecked and buried beneath the sand on top of Miracle Hill.

OLD INDIAN PUEBLO

By 1941 there was talk of a town at Desert Hot Springs, so Yerxa started the Old Indian Pueblo near the mountains. The architecture is Hopi Indian style, like that found in New Mexico 1,000 years or so ago, except that there are steps inside instead of Indian ladders outside. Also, the Indians had only one door and one window per room; but in this building there are two or three windows and doors to each room to make it practical. The structure is four stories high, contains 150 windows and 65 doors, 17 of which lead to the outside.

Having no money at the time, he took a pick and shovel and cut down the mountainside, put the earth in wheelbarrows, and filled up the canyon to make a front yard. This took about one year, and then he built the pueblo in the hole he had made because he wanted it to fit into the mountain.

The east wall on the ground floor is 100 feet long and has no doors or windows in this distance. The sun rises but does not shine into the rooms downstairs until it is on the way down. This makes for coolness. He worked some 20 or more years on the building. That east wall is 24 inches thick at the bottom and 10 or more at the top. For most of it, he hauled sand in a model T Ford; rocks and water for cement were transported in barrels. He mixed all by hand in a box, and alone did most of the construction. On occasion, he did have another man to help.

The rooms are small; but by counting everything -- kitchens, bathrooms, sleeping rooms, etc. -- there are 35 rooms in the unfinished building.

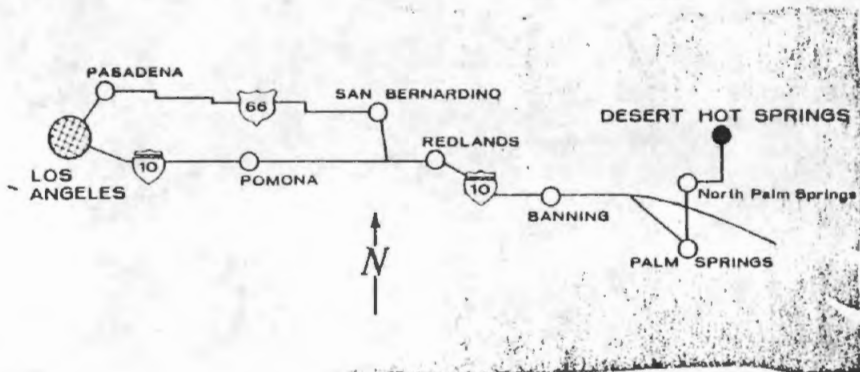
There never was a blue print, and it is all second hand lumber. Poles came out of mountain floods, many railroad ties, some timbers out of the Metropolitan Aqueduct tunnels. Bent, rusty nails were saved to straighten and use again.

Cabot's Old Indian Pueblo is one of the most fantastic structures in Southern California. Cabot Yerxa has built part of his soul into these adobe walls. His "castle" is an incredible building which stands as a fitting monument to his faith and love for this desert community.

ART GALLERY ... original paintings of the desert in all its many moods by noted desert artists are on exhibition.

IN THE TRADING POST... you will find for sale unusual gifts, post cards, hand work of the Indians, of Mexican artisans, books and various souvenirs of the desert.

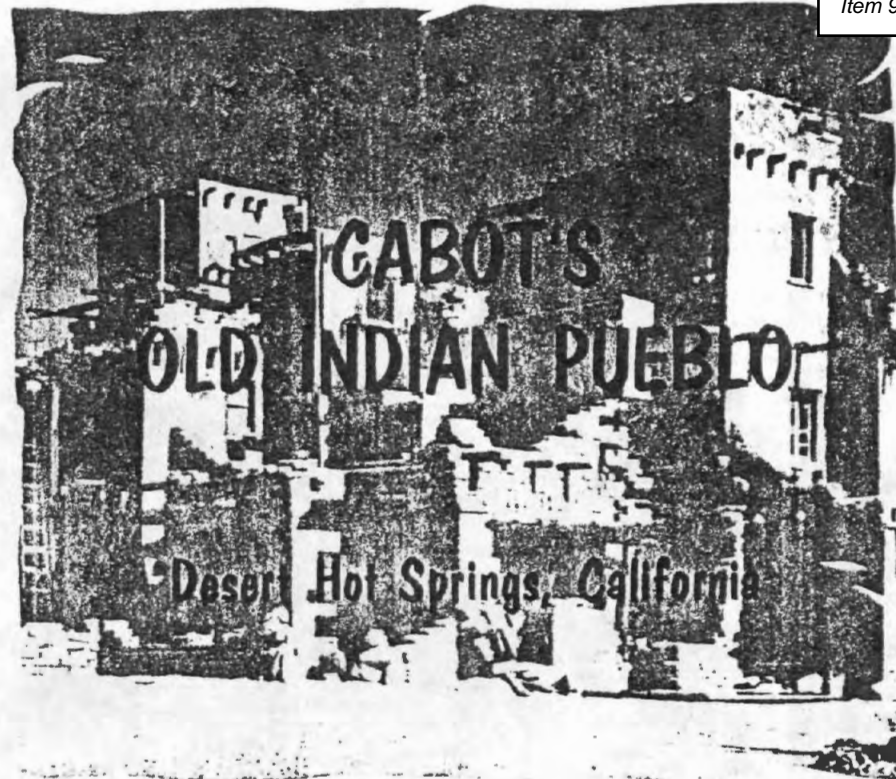
THE MUSEUM ... contains early day relics, Indian artifacts, beautiful bead work done by northern Indians (some of 100 years ago), an Indian tomahawk and buffalo leather shield from the Custer Battle Field. Also displayed are many things used by Eskimos in Alaska near the Arctic Circle from 50 - 200 years ago. There are animal skins, metate stones, desert animal traps, pack saddles, pictures taken during the Gold Rush to Cape Nome in 1900. Also can be seen the famous Indian suit worn by William Tomkins who wrote the Book of Indian Sign Language. It took more than one year to put the beads on this suit with 500 elk teeth used to trim it.



Landmark Conservators

P. O. BOX 1267
DESERT HOT SPRINGS, CA. 92240

A NON-PROFIT CORPORATION DEVOTED TO RESTORING, SUPPORTING & PRESERVING LANDMARKS FOR AMERICAN HERITAGE WITH ACTIVITIES ADVANCING SCIENTIFIC, EDUCATIONAL AND CHARITABLE PROGRAMS



YERXA'S ARRIVAL

Cabot Yerxa came to this desert in 1913, one of the very first homesteaders. He walked in during the night from the railroad, with some food in a paper bag, a quart bottle of water, but he had no blanket. So for two weeks he kept warm at night by a campfire, and obtained some sleep in the daytime by lying on the sand warmed by the sunshine.

After much walking and exploring, he finally made a home-stead location of 160 acres next to the Two Bunch Palms. At that time there were 100,000 acres of desert land open, and not even roads. It seems fantastic now, but at that time no one was interested in deserts with no water or anything deemed essential by city-type people. So there it was -- 100,000 acres to choose from.

In the beginning he slept on the ground, by a fire or in the sunshine. Then he dug a hole in a bank and lived there -- no roof, no floor, no windows, no bed, no door, no chair and no stove. He cooked on a campfire. Next came a one room cabin, 10 by 12 feet in size, walls of one inch boards.

33-6842

CABOT'S OLD INDIAN PUEBLO

MUSEUM TRADING POST
ART GALLERY



CALIFORNIA INDIAN MONUMENT

Desert Hot Springs, California 92240

67616 E. Desert View Avenue

OPEN ALL YEAR

HOURS: Wed. thru Mon. 9:30 a.m. - 4:30 p.m.

Closed Tuesday (714) 329-7610

YERXA'S ARRIVAL

Cabot Yerxa came to this desert in 1913, one of the very first homesteaders. He walked in during the night from the railroad, with some food in a paper bag, a quart bottle of water, but he had no blanket. So for two weeks he kept warm at night by a campfire, and obtained some sleep in the daytime by lying on the sand warmed by the sunshine.

After much walking and exploring, he finally made a homestead location of 160 acres next to the Two Bunch Palms. At that time there were 100,000 acres of desert land open, and not even roads. It seems fantastic now, but at that time no one was interested in deserts with no water or anything deemed essential by city-type people. So there it was — 100,000 acres to choose from.

In the beginning he slept on the ground, by a fire or in the sunshine. Then he dug a hole in a bank and lived there — no roof, no floor, no windows, no bed, no door, no chair and no stove. He cooked on a campfire. Next came a one room cabin, 10 by 12 feet in size, walls of one inch boards.

Money was scarce in those early days; in fact it was nonexistent. However, Yerxa finally came into possession of \$10 and he purchased a black burro which he named "Merry Xmas".

EAGLES NEST CABIN

In 1914 Yerxa very laboriously dug a large hole with pick and shovel on the crown of Miracle Hill, the location of which could not be seen.

Then in the hole he had made, was constructed the first permanent building in the area — Eagles Nest Cabin — 10 by 20 feet in size, built of stone. Cabot and Merry Xmas would walk seven miles over the desert to the railroad station at Garnet. Here they each got a drink of water. Then a 100 pound sack of cement was placed on the back of each, and they walked back to the homestead cabin, another seven miles. Gradually the cement, lumber, rocks and sand and water were carried to the top of Miracle Hill and Merry Xmas was turned loose on the desert to have a burro's holiday.

Eagles Nest Cabin had one door and one window out to the world; the rest was practically underground. A fireplace in one end added cheer and warmth. The main idea was to get out of the wind and to make safe storage for belongings.

Every few days Merry Xmas would climb the hill about noon time, after having eaten wild grass or sage brush, and lay down to rest. But when Yerxa opened his paper bag of lunch, or fried a little bacon or beans over a campfire, Merry Xmas stepped right forward and was given half the lunch. It would eat meat, potatoes, beans, bread, anything at all. It would chew tobacco, too, and could drink water out of a bottle. Merry Xmas was different from the average run of burros and became famous because of its unusual characteristics and intelligence. It was stolen while Yerxa was a soldier in World War I.

All went well for years, but the inevitable happened. Eagles Nest Cabin was discovered by vandals, then made a shambles, and later it was wrecked and buried beneath the sand on top of Miracle Hill.

OLD INDIAN PUEBLO

Item 9.

By 1941 there was talk of a town at Desert Hot Springs, so Yerxa started the Old Indian Pueblo near the mountains. The architecture is Hopi Indian style, like that found in New Mexico 1,000 years or so ago, except that there are steps inside instead of Indian ladders outside. Also, the Indians had only one door and one window per room; but in this building there are two or three windows and doors to each room to make it practical. The structure is four stories high, contains 150 windows and 65 doors, 17 of which lead to the outside.

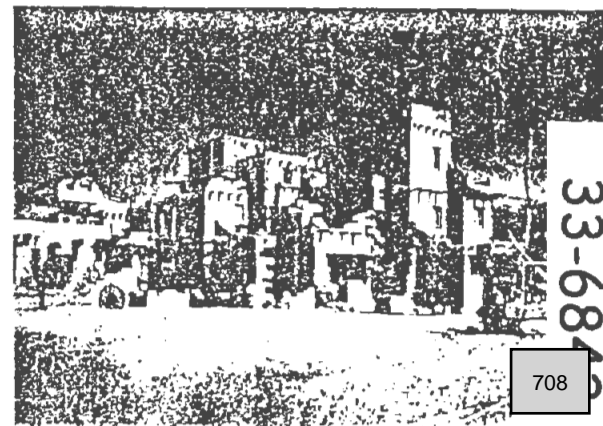
Having no money at the time, he took a pick and shovel and cut down the mountainside, put the earth in wheelbarrows, and filled up the canyon to make a front yard. This took about one year, and then he built the pueblo in the hole he had made because he wanted it to fit into the mountain.

The east wall on the ground floor is 100 feet long and has no doors or windows in this distance. The sun rises but does not shine into the rooms downstairs until it is on the way down. This makes for coolness. He worked some 20 or more years on the building. That east wall is 24 inches thick at the bottom and 10 or more at the top. For most of it, he hauled sand in a model T Ford; rocks and water for cement were transported in barrels. He mixed all by hand in a box, and alone did most of the construction. On occasion, he did have another man to help.

The rooms are small; but by counting everything — kitchens, bathrooms, sleeping rooms, etc. — there are 35 rooms in the unfinished building.

There never was a blueprint, and it is all second hand lumber. Poles came out of mountain floods, many railroad ties, some timbers out of the Metropolitan Aqueduct tunnels. Bent, rusty nails were saved to straighten and use again.

Cabot's Old Indian Pueblo is one of the most fantastic structures in Southern California. Cabot Yerxa has built part of his soul into these adobe walls. His "castle" is an incredible building which stands as a fitting monument to his faith and love for this desert community.



Peter Toth, Sculptor

Peter Toth has devoted the past seven years of his life fulfilling a dream he considers to be his destiny. The magnificent Indian Memorial being dedicated today marks the 27th statue he has completed toward his goal to place a memorial in each of the 50 states.

These monuments are carved to bring attention to the plight of the Indians, so that people might always remember that the Indians were and are a proud race of people who inhabited America before recorded history. His statues provide a means of preserving a memory that has too often been distorted or destroyed. May they generate the incentive to all Americans to preserve a culture of living together in peace.

Peter Toth was born in Hungary where he spent the first six years of his life, the next five years living in various European countries before his family moved to the United States in 1959. From the time he read about the Indians in Europe through his college education at the University of Akron in Ohio as a psychology major, he has been interested in the Indians. His cause is his dream, but he has made a seemingly impossible dream come true and is accomplishing something for humanity.

Through his sculptures and travels he estimates he has reached millions of people and thousands more with his lectures about Indians. He earns no profits from any of these statues but, instead, receives his reward from knowing that people seeing them might become aware of the Indian's cause. The courage to carry out a project of this magnitude certainly deserves the most heart warming thanks from people all over America.

Those of us in Riverside County and the State of California are especially grateful to Peter Toth for his gift. His silent monument will stand like the mighty redwood it is for a thousand years to come, a gentle reminder to all, and an opportunity for a quiet prayer of peace and good will for all mankind.

Monument Statistics

Hand carved from a giant Sequoia Redwood approximately 750 years old. The tree, felled by lightning 20 years ago, is almost 200 feet tall.

The portion used for the Monument weighs 20 tons, is 6 feet in diameter and 22 feet long. The concrete pedestal made of 2,000 pounds of steel and 33 yards of cement.

The finished height of the Monument, including pedestal and feather is 43 feet.

The feather is made from Incense Cedar acquired from Idyllwild; it was 15 feet long, 4 feet wide and 1½ feet thick.

33-6842

709

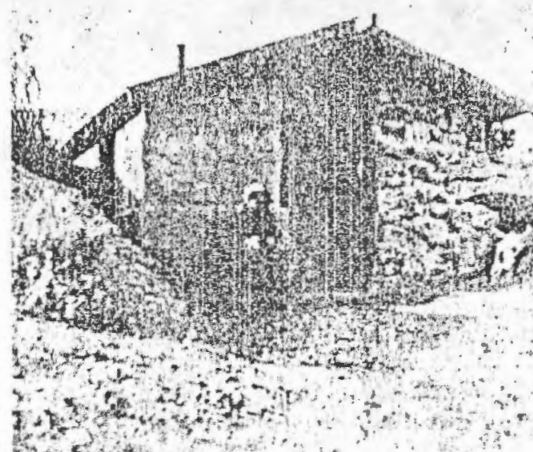
ART GALLERY . . . original paintings of the desert in all its many moods by noted desert artists are on exhibition.

IN THE TRADING POST . . . you will find for sale unusual gifts, post cards, hand work of the Indians, of Mexican artisans, books and various souvenirs of the desert.

THE MUSEUM . . . contains early day relics, Indian artifacts, beautiful bead work done by northern Indians (some of 100 years ago), an Indian tomahawk and buffalo leather shield from the Custer Battle Field. Also displayed are many things used by Eskimos in Alaska near the Arctic Circle from 50 - 200 years ago. There are animal skins, metate stones, desert animal traps, pack saddles, pictures taken during the Gold Rush to Cape Nome in 1900. Also can be seen the famous Indian Suit worn by William Tompkins who wrote the Book of Indian Sign Language. It took more than one year to put the beads on this suit with 500 elk teeth used to trim it.



MERRY CHRISTMAS

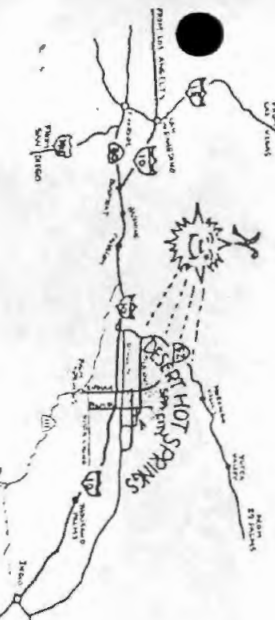


EAGLES NEST

Sandmark Conservators

P.O. BOX 1267
DESERT HOT SPRINGS, CA. 92240

A NONPROFIT CORPORATION DEVOTED TO RESTORING, SUPPORTING & PRESERVING LANDMARKS FOR AMERICAN HERITAGE WITH ACTIVITIES ADVANCING SCIENTIFIC, EDUCATIONAL, AND CRIMINALIST PROGRAMS

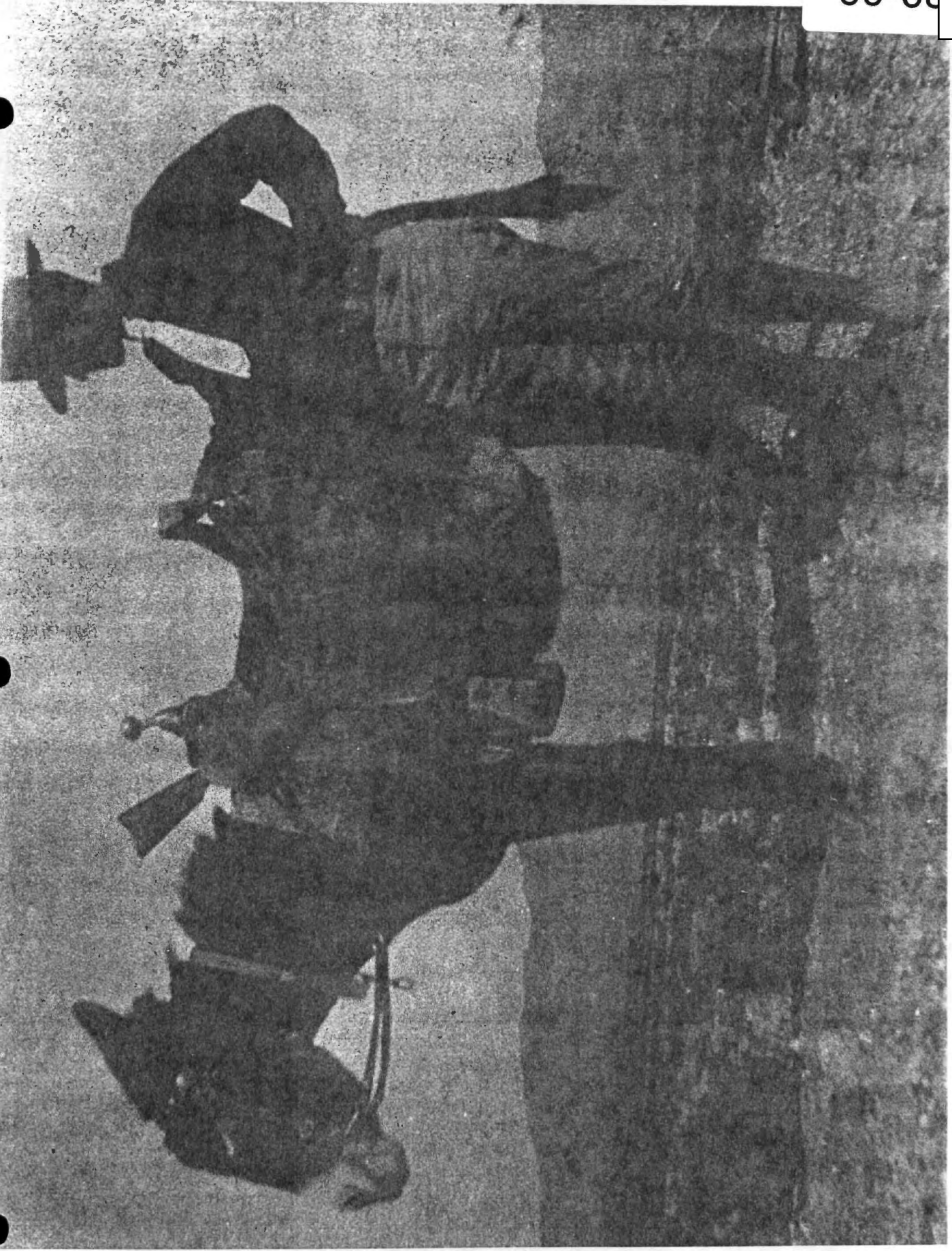


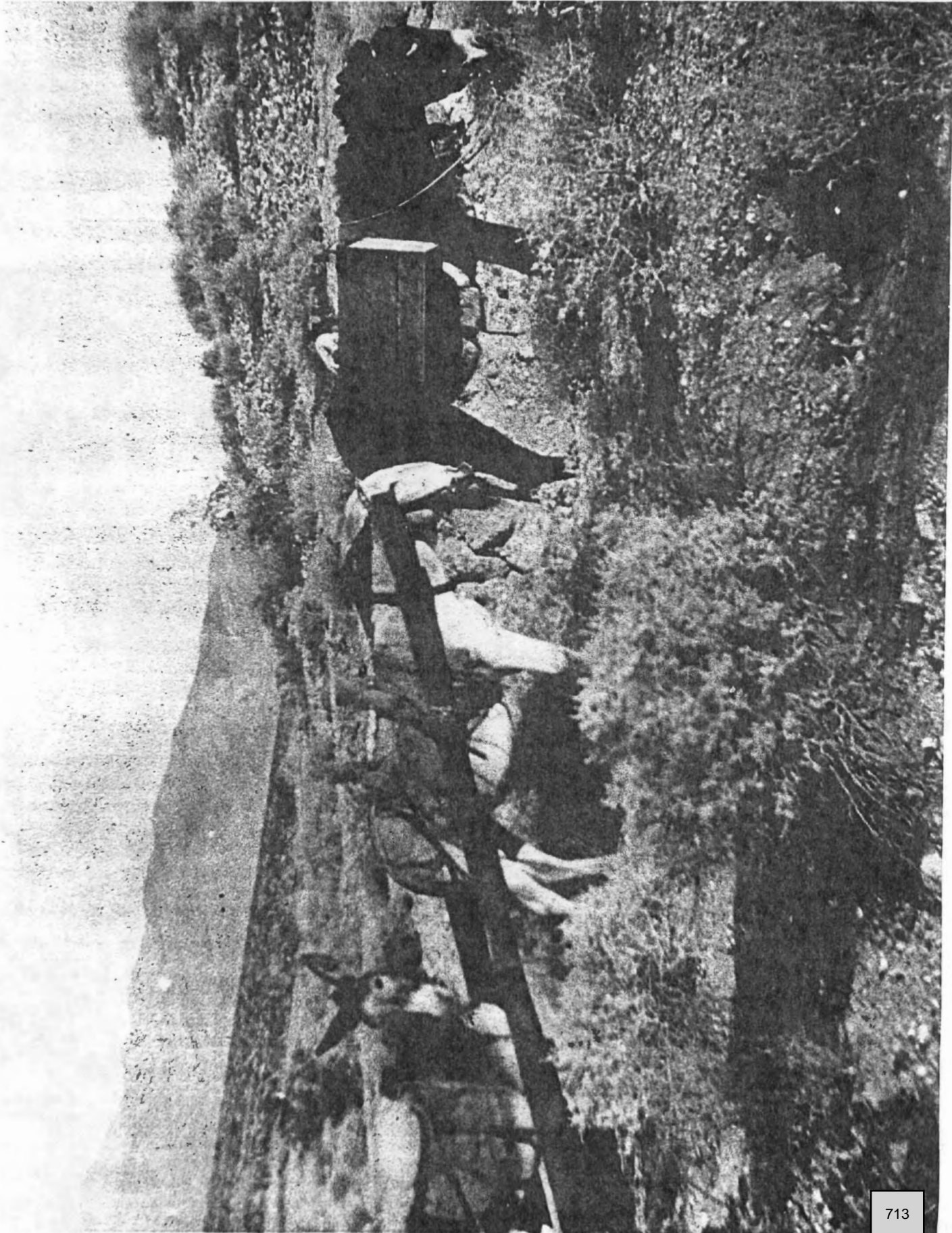
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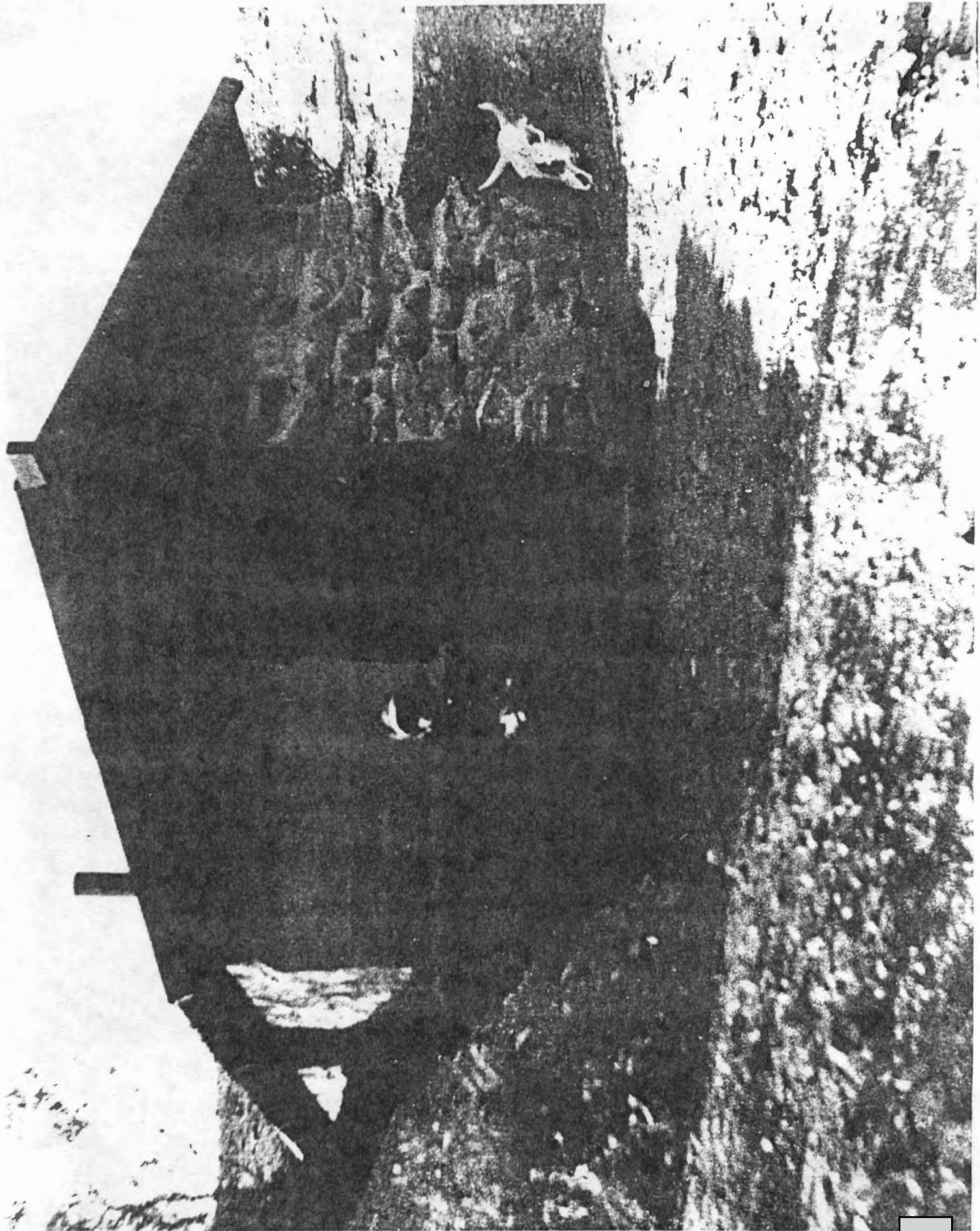


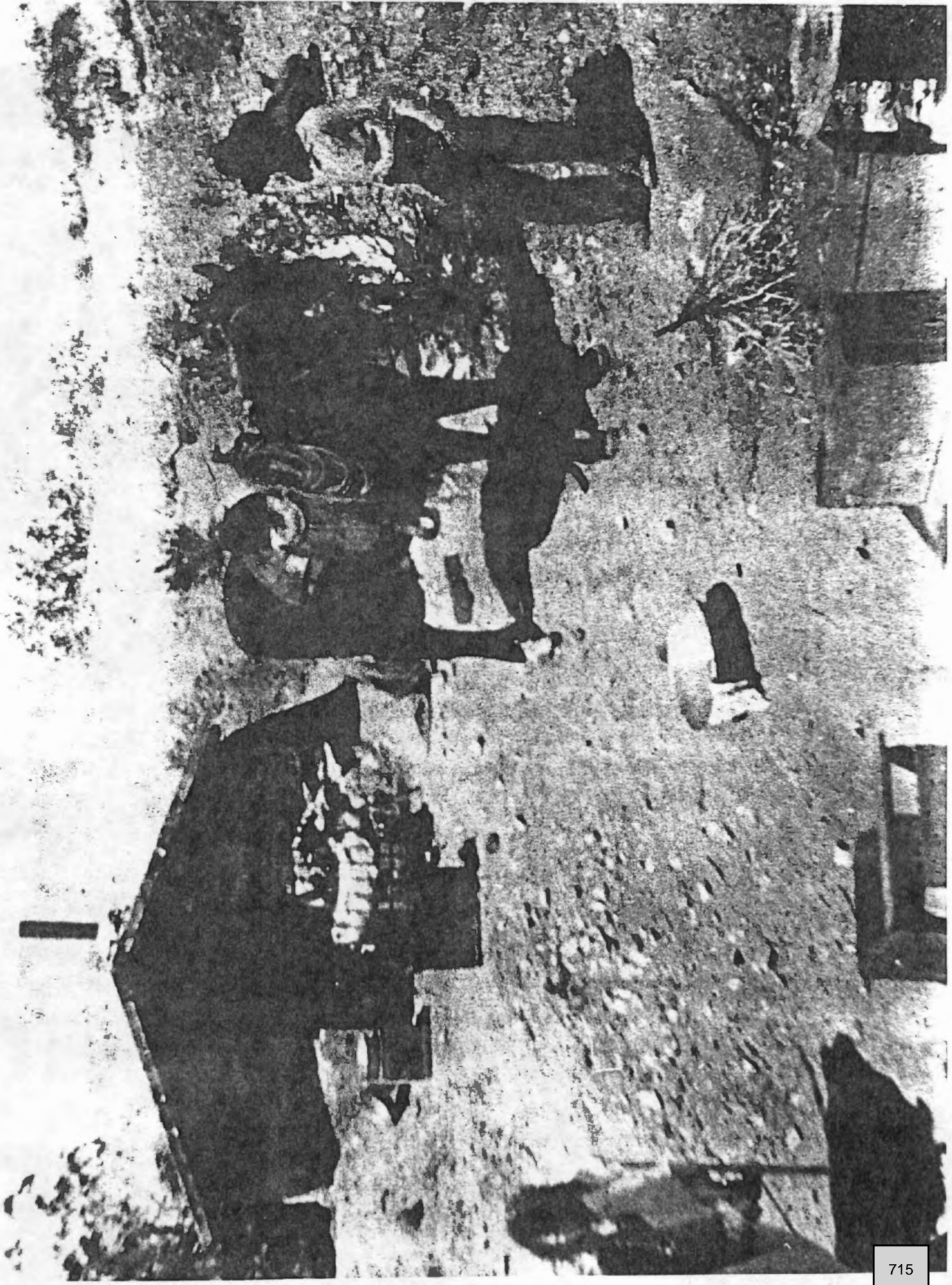














"CABOT'S OLD INDIAN PUEBLO"
Desert Hot Springs, California

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 33-16938

HRI # _____

Trinomial CA-RIV-8105NRHP Status Code 7

Other Listings _____

Review Code _____

Reviewer _____

Date _____

Page 1 of 4*Resource Name or # (Assigned by recorder) CRM TECH 2205-1

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Seven Palms Valley, Calif. Date 1958/1972

T2S; R5E; NE 1/4 of NE 1/4 of NE 1/4 of SE 1/4 of Sec 31; S.B. B.M.

Elevation: Approximately 1,012 feet above mean sea levelc. Address N/A City Desert Hot Springs Zip _____d. UTM: (Give more than one for large and/or linear resources) Zone 11S; 546,908 mE/ 3,756,945 mNUTM Derivation: USGS Quad GPS (NAD 27)e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The site is located approx. 110 feet south of Hacienda Avenue and approx. 155 feet west of the unpaved extension of Verbena Drive.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This site consists of a prehistoric artifact scatter located on the slope of a mesquite sand dune. The artifacts are found in a disturbed area where a geological trench was apparently excavated into the dune. Among the artifacts are some 27 ceramic sherds, 1 metate fragment, 4 mano fragments, 1 chipped-stone flake, and 4 bone fragments. Only 1 ceramic sherd was found outside the disturbed area.

*P3b. Resource Attributes: (List attributes and codes) AP2-lithic scatter; AP3-ceramic scatter; AP16-other (groundstone)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) _____

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both _____

*P7. Owner and Address: Unknown

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester, CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: January 29, 2008

*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance purposes

*P11. Report Citation: (Cite survey report and other sources, or enter "none") Bai "Tom" Tang, Clarence Bodmer, Daniel Ballester, and Laura Shaker (2008): Historical/Archaeological Resources Survey Report, Casa de Oro Project, City of Desert Hot Springs, Riverside County, California. On file at the Eastern Information Center, University of California, Riverside.

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MAR 15 2008

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*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 33-16938
Trinomial CA-RIV-8105

ARCHAEOLOGICAL SITE RECORD

Page 2 of 4

*Resource Name or # (Assigned by recorder) CRM TECH 2205-1

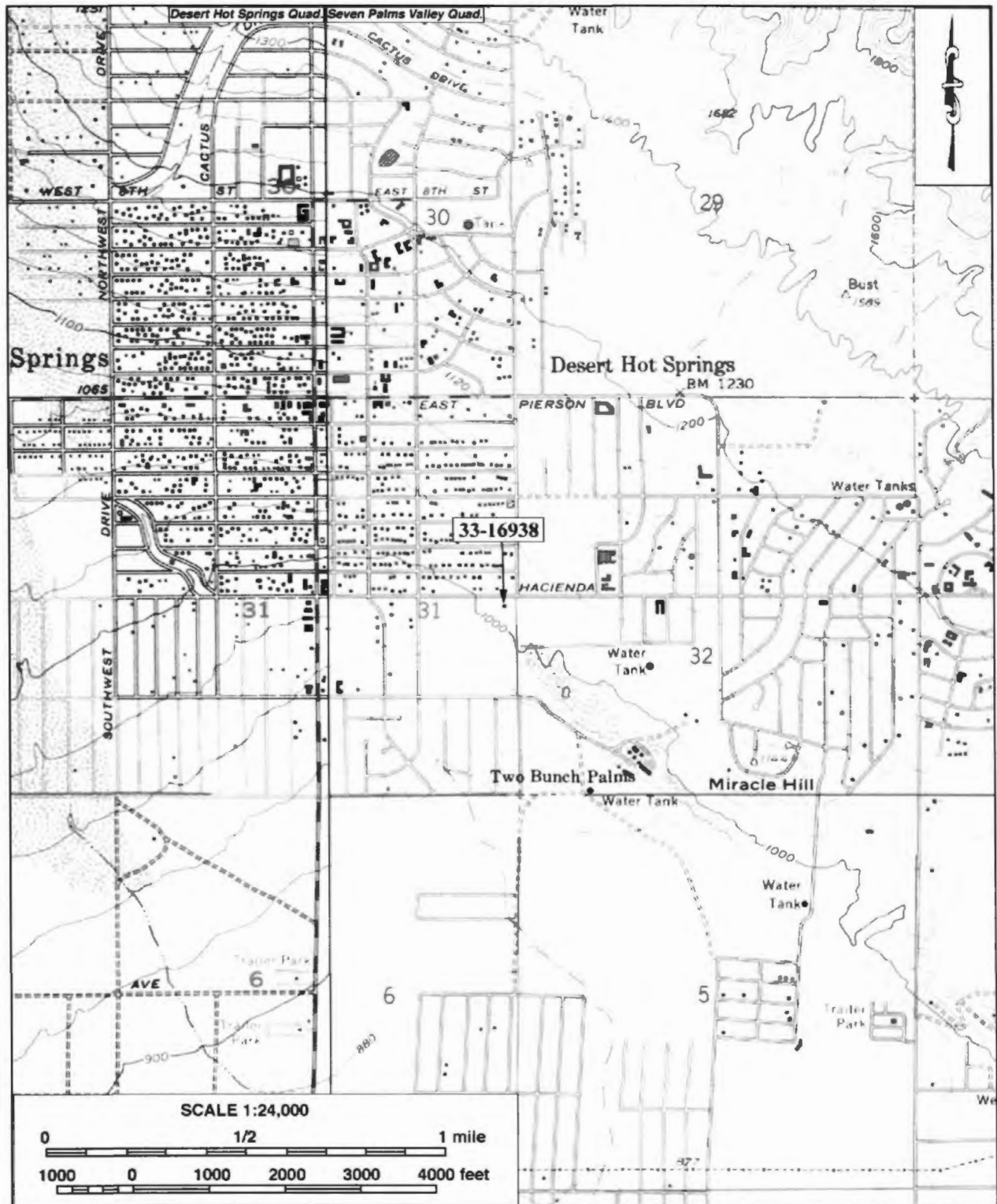
- A1. Dimensions: a. Length 117 m (NE-SW) b. Width 50 m (NW-SE)
Method of Measurement: Paced Taped Visual estimate Other: _____
Method of Determination (Check any that apply.): Artifacts Features Soil Vegetation
 Topography Cut bank Animal burrow Excavation Property boundary Other (Explain): _____
Reliability of Determination: High Medium Low Explain: _____
Limitations (Check any that apply.): Restricted access Paved/built over Site limits incompletely defined
 Disturbances Vegetation Other (Explain): _____
- A2. Depth: _____ None Unknown Method of Determination: _____
- *A3. Human Remains: Present Absent Possible Unknown (Explain): _____
- *A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map) None
- *A5. Cultural Constituents: (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) See Item P3a.
- *A6. Were Specimens Collected? No Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- *A7. Site Condition: Good Fair Poor (Describe disturbances): Geologic trenching has disturbed the soils to an unknown depth.
- *A8. Nearest Water (Type, distance, and direction): The Little Morongo Wash is located approximately 1.64 miles to the west of the site.
- *A9. Elevation: Approximately 1,012 feet above mean sea level
- A10. Environmental Setting: (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located on the northwestern slope of a large mesquite dune that extends towards Two Bunch Palms Trail. The vegetation observed in the area consists of creosote bushes, mesquite brush, chollas, brittle brush, saltbushes, and small desert grasses and shrubs.
11. Historical Information: N/A
- *A12. Age: Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 1914-1945
 Post 1945 Undetermined Describe position in regional prehistoric chronology or factual historic dates if known: _____
- A13. Interpretations: (Discuss scientific, interpretive, ethnic, and other values of site, if known) This site may be an extension of Site 33-1246 (CA-RIV-1246), an important early Native American habitation site found near the Two Bunch Palms resort, some 550 feet to the southeast.
- A14. Remarks: Archaeological testing is recommended.
- A15. References: (Documents, informants, maps, and other references.): See Item P11.
- A16. Photographs: (List subjects, direction of view, and accession numbers or attach a Photograph Record): _____
Original Media/Negatives Kept at: CRM TECH, 1016 E. Cooley Drive, suite A/B, Colton, CA 92324
- *A17. Form Prepared by: Daniel Ballester Date February 1, 2008
Affiliation and Address: CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

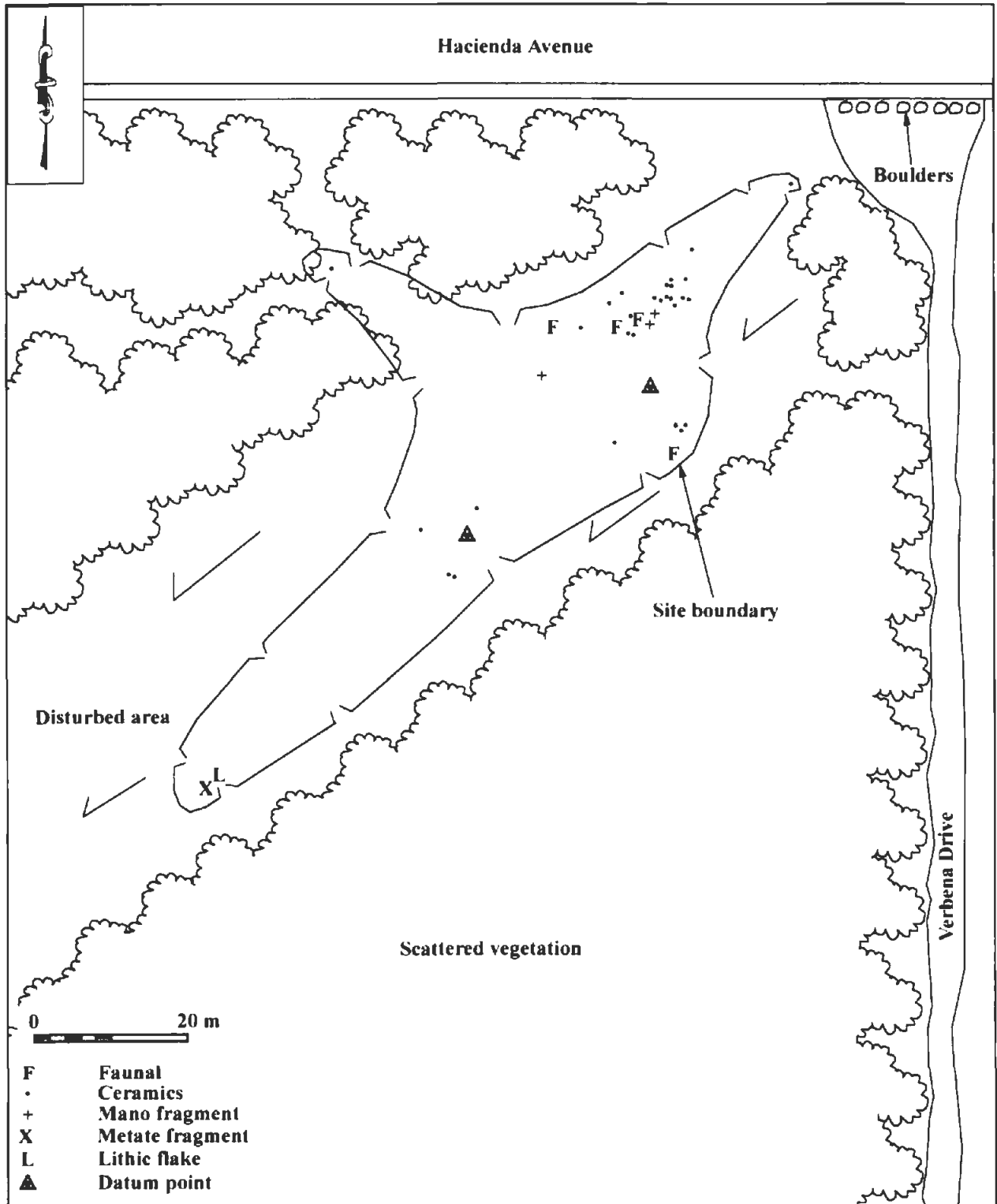
Primary # 33-16938
HRI # _____
Trinomial CA-RIV-8105

Page 3 of 4 *Resource Name or # (Assigned by recorder) CRM TECH 2205-1

*Map Name: Seven Palms Valley, Calif. *Scale: 1:24,000 *Date of Map: 1958/1972



SKETCH MAP



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 33-024265

HRI # _____

Trinomial _____

NRHP Status Code 6Z

Other Listings

Review Code _____

Reviewer _____

Date _____

Page 1 of 2*Resource Name or # (Assigned by recorder) CRM TECH 2954-Isa 2

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Riverside County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Seven Palms Valley, Calif. Date 1959, photorevised 1972

T2S; R5E; SE 1/4 of SE 1/4 of Sec 29 ; S.B. B.M.

Elevation: Approximately 1,400 feet above mean sea levelc. Address N/A City Desert Hot Springs Zip 92240d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 548,475 mE/ 3,758,122 mNUTM Derivation: USGS Quad GPS (NAD 83)e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) APN 633-340-006; approximately 1,685 feet north from Desert View Avenue and 750 feet northwest of Highland Avenue*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of two brownware ceramic sherds from the same vessel, found in a small drainage running in a northeast-southwest direction.*P3b. Resource Attributes: (List attributes and codes) AP3-ceramic scatter (isolate)*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) _____

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both _____

*P7. Owner and Address: _____

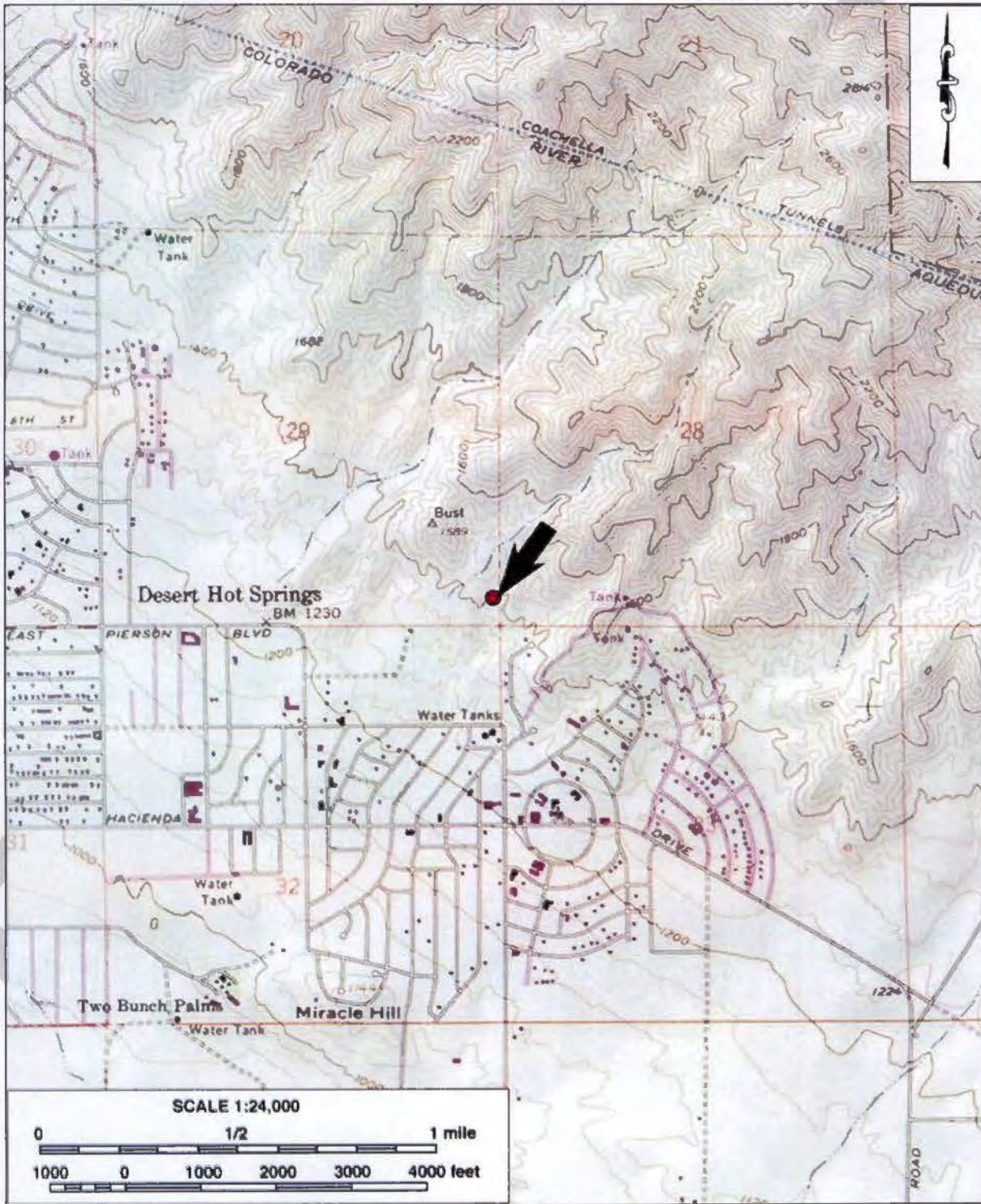
*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324*P9. Date Recorded: July 30, 2015*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance purpose*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Jesse Yorck, Ben Kerridge, Daniel Ballester, and Nina Gallardo (2015): Phase I Historical/Archaeological Resources Survey: Tuscan Hills Residential Community, City of Desert Hot Springs, Riverside County, California*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

Page 2 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 2954-Iso 2

*Map Name: Seven Palms Valley, Calif. *Scale: 1:24,000 *Date of Map: 1958/1972



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 33-024266
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings

Review Code _____ Reviewer _____ Date _____

Page 1 of 2 *Resource Name or # (Assigned by recorder) CRM TECH 2954-Iso 1

P1. Other Identifier: _____

*P2. Location: Not for Publication Unrestricted *a. County Riverside County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Seven Palms Valley, Calif. Date 1958, photorevised 1972

T2S; R5E; SE 1/4 of SW 1/4 of Sec 29 ; S.B. B.M.

Elevation: Approximately 1,255 feet above mean sea level

c. Address N/A City Desert Hot Springs Zip 92240

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 547,679 mE/ 3,758,079 mN

UTM Derivation: USGS Quad _____ GPS (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) APN 638-340-007; approximately 450 feet north from Miracle Hill Road and 410 feet northeast of Pierson Boulevard

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This isolate consists of two brownware ceramic sherds from the same vessel, found in a small drainage that runs into a large wash.

*P3b. Resource Attributes: (List attributes and codes) AP3-ceramic scatter (isolate)

*P4. Resources Present: Building Structure Object Site District Element of District
 Isolate Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) _____

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both

*P7. Owner and Address: _____

*P8. Recorded by: (Name, affiliation, and address) Daniel Ballester, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: July 29, 2015

*P10. Survey Type: (Describe) Intensive-level survey for CEQA-compliance purpose

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Jesse Yorck, Ben Kerridge, Daniel Ballester, and Nina Gallardo (2015): Phase I Historical/Archaeological Resources Survey: Tuscan Hills Residential Community, City of Desert Hot Springs, Riverside County, California

*Attachments: None Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List): _____

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

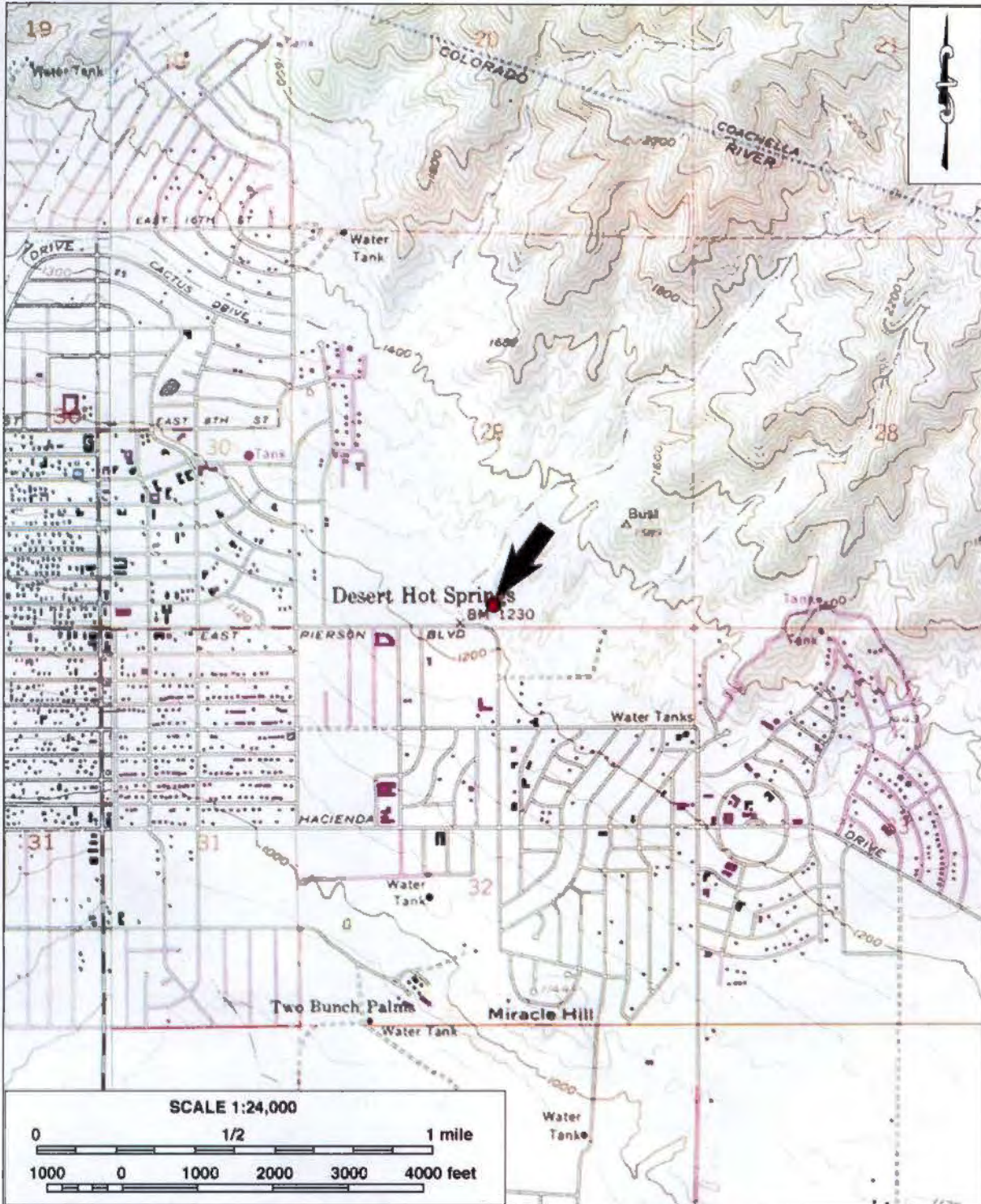
Page 2 of 2

*Resource Name or # (Assigned by recorder) CRM TECH 2954-Iso 1

*Map Name: Seven Palms Valley, Calif.

*Scale: 1:24,000

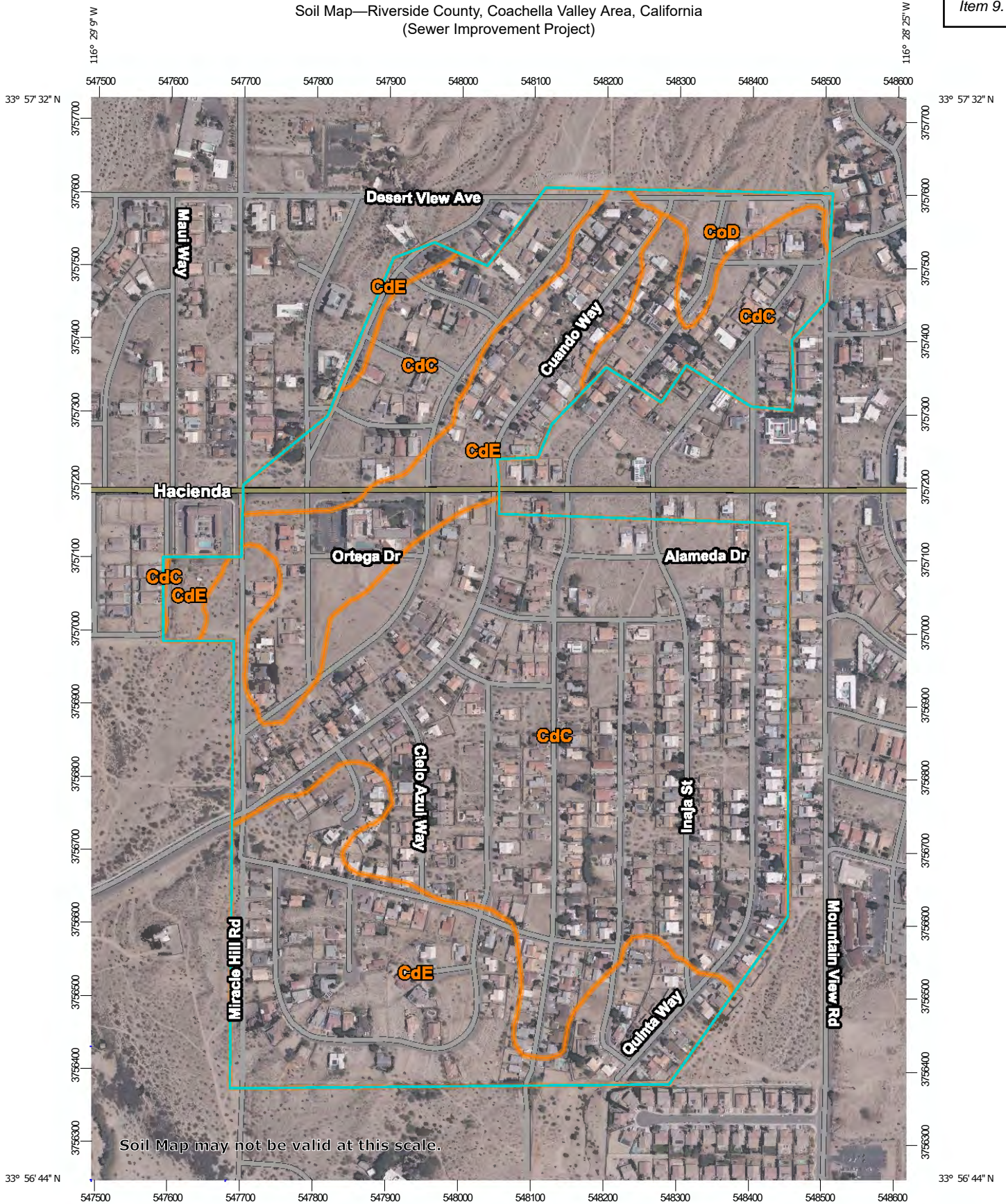
*Date of Map: 1958/1972



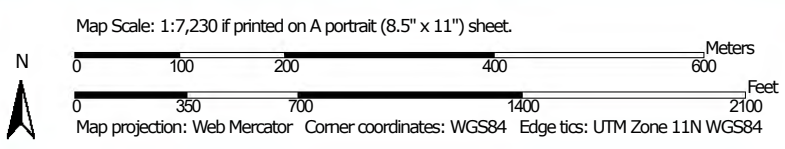
APPENDIX 4b

Soil Map—Riverside County, Coachella Valley Area, California
(Sewer Improvement Project)

Item 9.




Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils


 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Riverside County, Coachella Valley Area, California
Survey Area Data: Version 12, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 18, 2018—Aug 22, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CdC	Carsitas gravelly sand, 0 to 9 percent slopes	124.3	63.0%
CdE	Carsitas gravelly sand, 9 to 30 percent slopes	68.6	34.7%
CoD	Chuckawalla very gravelly sandy clay loam, 5 to 15 percent slopes	4.5	2.3%
Totals for Area of Interest		197.4	100.0%

MISSION SPRINGS WATER DISTRICT MITIGATED NEGATIVE DECLARATION

Lead Agency: Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

Contact: Danny Friend
Phone: (760) 329-6448
Email: dfriend@mswd.com

Project Title: Areas H and I Sewer Improvement Project

State Clearinghouse Number: SCH#2021050331

Project Location: The MSWD service area is located in southern California within the northwestern portion of the Coachella Valley. The project will occur within various roadways generally located south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road. The southern boundary of the project site is about a half mile south of Hacienda Avenue. The roadways within which the proposed sewer improvements will be located include:

- Agua Cayendo Road
- Cuando Way
- Oro Lomo Street
- Suerte Way
- Tunitas Road
- Eliseo Road
- Miracle Hill Road
- Cerrita Way
- Pequena Drive
- Cielo Azul Way
- Loma Vista Road
- Hidalgo Street
- Hermano Way
- Inaja Street
- Quinta Way
- Monterico Road
- Alameda Drive
- Arena Blanca Road
- Oris Drive
- Key Way
- Monterey Road

The project is located within the USGS Topo 7.5-minute map for Seven Palms Valley, CA, and is located in Section 33, Township 2 South and Range 5 East. The approximate GPS coordinates of the project area are 33.95020°, -116.48380°.

Project Description: The District developed a Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater. The overall GQPP is designed to protect groundwater quality from degradation by discharges from septic tank leach-fields.

MSWD proposes to construct 30,000 lineal feet of new sewer pipeline that would be 8-inch in size within GQPP Sub Areas H and I of the District’s service area, within an area of approximately 220 acres. The installation of this new sewer pipeline would convert areas within MSWD’s service area from septic system to a sewer system. This project pertains to Sub Areas H and I and would install the pipeline required to connect 678 parcels to the MSWD sewer system and abate over 468 on-site septic systems.

Finding: The Mission Springs Water District’s decision to implement this proposed project is a discretionary decision or “project” that requires evaluation under the California Environmental Quality Act (CEQA). Based on the information in the project Initial Study, the City has made a *preliminary* determination that a Mitigated Negative Declaration will be the appropriate environmental determination for this project to comply with CEQA.

Mitigation Negative Declaration, page 2 of 2

Initial Study: Since the State has issued an Executive Order during the threat of COVID-19 and the MSWD Offices may be closed to the public; a copy of the Initial Study will be available at the MSWD Offices (66575 Second Street, Desert Hot Springs, CA 92240), electronically at their website, and may also be obtained by contacting Tom Dodson & Associates at (909) 882-3612. The 30-day public review period for the Initial Study began May 19, 2021 and ended June 17, 2021. Any interested person or agency may comment on this matter by submitting their written comments before June 17, 2021. Comments should be sent to Danny Friend at the Mission Springs Water District’s office at 66575 Second Street, Desert Hot Springs, CA 92240. For additional information, Mr. Friend may be contacted at dfriend@mswd.org

Mitigation Measures: All mitigation measures identified in the Initial Study are summarized on pages 68-71 and are proposed for adoption as conditions of the project. These measures will be implemented through a mitigation monitoring and reporting program if the Mitigated Negative Declaration is adopted.

Signature *Title* *Date*

MISSION SPRINGS WATER DISTRICT NOTICE OF DETERMINATION

To: Riverside County Clerk
2724 Gateway Drive
Riverside, CA 92507

From: Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240

and
Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

Subject: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

Mission Springs Water District Areas H and I Sewer Improvements Project
Project Title

SCH#2021050331	Danny Friend	760) 329-6448	dfriend@mswd.org
State Clearinghouse No.	Lead Agency Contact Person	Telephone Number	Email Address

Project Location

The MSWD service area is located in southern California within the northwestern portion of the Coachella Valley. The project will occur within various roadways generally located south of Desert View Avenue, west of Mountain View Road, and east of Miracle Hill Road. The southern boundary of the project site is about a half mile south of Hacienda Avenue. The roadways within which the proposed sewer improvements will be located include:

- Agua Cayendo Road
- Cuando Way
- Oro Lomo Street
- Suerte Way
- Tunitas Road
- Eliseo Road
- Miracle Hill Road
- Cerrita Way
- Pequena Drive
- Cielo Azul Way
- Loma Vista Road
- Hidalgo Street
- Hermano Way
- Inaja Street
- Quinta Way
- Monterico Road
- Alameda Drive
- Arena Blanca Road
- Oris Drive
- Key Way
- Monterey Road

The project is located within the USGS Topo 7.5-minute map for Seven Palms Valley, CA, and is located in Section 33, Township 2 South and Range 5 East. The approximate GPS coordinates of the project area are 33.95020°, -116.48380°.

Project Description

The District developed a Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater. The overall GQPP is designed to protect groundwater quality from degradation by discharges from septic tank leach-fields.

MSWD proposes to construct 30,000 lineal feet of new sewer pipeline that would be 8-inch in size within GQPP Sub Areas H and I of the District's service area, within an area of approximately 220 acres. The installation of this new sewer pipeline would convert areas within MSWD's service area from septic system to a sewer system. This project pertains to Sub Areas H and I and would install the pipeline required to connect 678 parcels to the MSWD sewer system and abate over 468 on-site septic systems.

Notice of Determination, page 2 of 2

This is to advise that the Mission Springs Water District has approved the above described project on
 Lead Agency Responsible Agency

_____ and has made the following determination regarding the above described project:
(Date)

1. The project [will will not] have a significant effect on the environment.
2. An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
 A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [were were not] made a condition of the approval of the project and a Mitigation Monitoring and Reporting Plan was adopted.
4. A Statement of Overriding Considerations [was was not] adopted for this project.
5. Findings [were were not] made pursuant to the provisions of CEQA.

This is to certify that the Mitigated Negative Declaration/Initial Study and record of project approval is available to the general public at:

66575 Second Street, Desert Hot Springs, CA 92240

Signature *Title* *Date*

AGENDA STAFF REPORT

MEETING NAME: Regular Board Meeting
MEETING DATE(S): September 16 & 20, 2021
FROM: Brian Macy – Assistant General Manager



FOR: ACTION X DIRECTION INFORMATION

ACCEPTANCE OF THE N. INDIAN CANYON DRIVE SEWER CONSTRUCTION PROJECT

STAFF RECOMMENDATION

Board acceptance of the N. Indian Canyon Drive Sewer Construction Project as complete and authorize the release of retention money held for Downing Construction, Inc. in the amount of 5% of the approved contract amount, thirty-five days after filing the Notice of Completion (NOC).

SUMMARY

On November 16, 2020, the Board approved the construction contract with Downing Construction, Inc. for the construction of the N. Indian Canyon Drive Sewer Construction Project. This project included the construction of 2,408 lineal feet of sewer ahead of the Riverside County N. Indian Canyon Widening Project Phase 2 which includes the area bounded by Dillon Road and 18th Avenue in N. Palm Springs. Constructing our sewer project ahead of the widening project allowed the District to save costs on removing and replacing the future asphalt being installed over the location of our Project.

ANALYSIS

This project was inspected with contract inspection and was determined to be complete by District staff on May 8, 2021. All progress payment invoices were authorized for payment to the contractor as recommended by our construction management consultant. The NOC will be recorded at the County of Riverside Recorder's Office following Board acceptance.

FISCAL IMPACT AND STRATEGIC PLAN IMPLEMENTATION

Final contract price for the project was \$466,512.57. The total contract cost included change orders totaling \$18,220.12. Project costs are part of the approved MSWD capital project budget amount of \$770,000. Total contract cost did not exceed the approved contract price of \$515,137.70 (which included a 10% contingency).

ATTACHMENTS

NOC (to be filed with the County of Riverside)

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

**Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240**

EXEMPT – GOV'T CODE 6103

The undersigned grantor declares:
Documentary transfer tax is \$ 0.00.
() computed on the full value of property conveyed, or
() computed on full value less value of liens and encumbrances remaining at time of sale.
() Unincorporated area: () City of _____, and County of _____.

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FOR RECORDER'S USE ONLY

NOTICE OF COMPLETION

Notice is hereby given that:

1. The undersigned is owner or corporate officer of the owner of the interest or estate stated below in the property hereinafter described:
2. The full name of the owner is Mission Springs Water District
3. The full address of the owner is 66575 Second Street, Desert Hot Springs, CA 92240
4. The nature of the interest or estate of the owner is in fee.

(if other than fee, strike "in fee" and interest, for example, "purchaser under contract of purchases," or "lessee")

5. The full names and full addresses of all persons, if any, who hold title with the undersigned as joint tenants or as tenants in common are:

NAME	ADDRESS

6. A work of improvement on the property hereinafter described was completed on 05/08/2021
The work done was: N. Indian Canyon Drive Sewer Construction Project – MSWD Project Order No. 17-004-S
7. The name of the contractor, if any, for such work of improvement was Downing Construction, Inc., 32194 Outer Highway 10 South, Redlands, CA 92373

11/19/2020

(If no contractor for work of improvement as a whole, insert "none")

(Date of Contract)

8. The property on which said work of improvement was completed is in the City of Desert Hot Springs County of Riverside, State of California, and is described as follows: N. Indian Canyon Drive between 18th Avenue and Dillon Road within MSWD's service area.
9. The street address of said property is: None

(if no street address has been officially assigned, insert none)

Dated: _____

Arden Wallum, General Manager
Mission Springs Water District

VERIFICATION

I, the undersigned, say: I am the General Manager, the declarant of the foregoing Notice of Completion; I have read said Notice of Completion and know the contents thereof; the same is true of my knowledge. I declare under penalty or perjury that the foregoing is true and correct.

Executed on _____, 20_____, at _____, California.
(Date of signature) (City where signed)

(Personal signature of the individual who is swearing that the contents of the notice of completion are true)



BOARD OF DIRECTORS REGULAR MEETING STUDY SESSION MINUTES

Thursday, July 15, 2021 at 3:00 PM
Via Teleconference – No Live Attendance

CALL TO ORDER

President Wright called the meeting to order at 3:00 PM.

ROLL CALL

BOARD MEMBERS PRESENT: President Nancy Wright, Vice President Russ Martin, Director Randy Duncan, Director Steve Grasha

BOARD MEMBERS ABSENT: Director Ivan Sewell

STAFF PRESENT: Arden Wallum, Brian Macy, Dori Petee, Theresa Murphy, Bassam Alzammar, Oriana Hoffert, April Scott, Lisa Pelton

LEGAL COUNSEL PRESENT: Lena Wade

RULES OF PROCEDURE

Rules of Procedure were ready by General Counsel, Lena Wade

"First all noticed meetings are conducted using Rosenberg's Rules of Order as procedural guidance. Directors should refrain from responding directly to public comment at meetings of the Board. The President of the Board presides at all meetings and decides all points of order and procedure during meetings. The President is responsible for maintenance and decorum at all Board meetings. No persons shall be allowed to speak who is not first been recognized by the President. All questions and remarks should be addressed to the President as the presiding officer. No member of the Board should speak more than once upon any one subject until every other member on the Board, wishing to speak on the subject shall have been given the opportunity to speak. No Board member shall interfere with the orderly progress of a Board meeting. In order to ensure the orderly progress of Board meetings the Board President regulates the amount of time to be dedicated to a particular agenda item."

PUBLIC INPUT

No general public input

COVID-19 UPDATE AND DISCUSSION

Mr. Wallum gave a brief COVID-19 update.

EMPLOYEE RECOGNITION

HUMAN RESOURCES REPORT

This item will be fully acknowledged on Monday.

ACTION ITEMS

ORDINANCE 2021-01 - AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MISSION SPRINGS WATER DISTRICT REPEALING ORDINANCE NO. 2014-01, AND SECTION 15 OF ORDINANCE NO. 93-3, AND REPLACING THE SAME BY ADOPTING THE 2021 WATER SHORTAGE CONTINGENCY PLAN.

It is recommended to waive the reading and adopt Ordinance No. 2021-01, adopting and implementing the 2021 Water Shortage Contingency Plan.

Mr. Wallum noted this is primarily an administrative process. The WSCP (Water Shortage Contingency Plan) was adopted last month, this ordinance reflects the changes and updates.

Mr. Ledbetter elaborated that in order to enact the WSCP and make it part of the Districts policy, we needed to take this step to get it adopted through Ordinance. Through a question from President Wright, Mr. Ledbetter noted that the District has control over what they implement in the event of a drought order. Although this was a collaborative effort with other valley water districts, we do not all have to implement the same actions as other districts, as long as the end point is the same.

DISCUSSION ITEMS

GROUNDWATER SUSTAINABILITY PLAN UPDATE

Mission Creek Subbasin and San Gorgonio Pass Subbasin

Mr. Wallum noted that in 2014 the legislature passed the Sustainable Groundwater Management Act (SGMA). It first establishes groundwater sustainability agencies (GSA's) that must individually or together adopt Groundwater Sustainability Plans (GSP's).

Mr. Ledbetter presented to the Board a 2022 Sustainable Groundwater Management Update.

MSWD REGIONAL WATER RECLAMATION FACILITY UPDATE

Mr. Ledbetter updated the Board. The treatment plant went to bid in May and through the course of June, staff conducted the pre-construction bid conference and field walk with all perspective bidders. Staff is also working through all the information in the RFI (Request for Information) process. This process closed on June 30th with 370 RFI's. The Bid process was set to open today, but has been pushed to Thursday, July 22nd.

CRITICAL SERVICES CENTER AND ADMINISTRATION BUILDING UPDATE

Contract awarded on July 1st, since then they have been working with staff on the locations selected.

CONSENT AGENDA

Consent agenda items are expected to be routine and non-controversial, to be acted upon by the Board at one time, without discussion. If a member would like an item to be handled separately, it will be removed from the Consent Agenda for separate action.

APPROVAL OF MINUTES

It is recommended to approve the minutes as follows:

Vice President Martin asked for clarification on the Bill of Sale for the Desert Hot Springs Library.

June 9, 2021 - Special Meeting/Workshop
June 17, 2021 - Study Session
June 21, 2021 - Board Meeting

REGISTER OF DEMANDS

The register of demands totaling \$1,962,330.00

ACCEPTANCE OF BILL OF SALE FOR THE DESERT HOT SPRINGS LIBRARY

It is recommended to authorize the General Manager to execute the Bill of Sale for the Water and Sewer Infrastructure for the DHS Library project located at the northeast corner of Palm Drive and Park Lane, Desert Hot Springs as contributed assets.

DIRECTOR'S REPORTS

UPCOMING EVENTS AND DIRECTOR REPORTS

Reports will be given on Monday.

REPORTS

GENERAL MANAGER'S REPORT

Nothing to add, written report available in the Board packet. Public Relations report and Financial report will be given on Monday.

DISTRICT COUNSEL COMMENTS

No comments

DIRECTOR COMMENTS

Director Grasha commented on the location for the new Administration building, noting President Wright promised to consider more than one location. He also noted fines created by our political structure and fines from other districts wastewater treatment plants. He noted he would like the District headquarters to be closer to the treatment plant so staff could keep a closer eye on operations and the community could keep a closer eye on the District. Mr. Grasha wonders if the District could be required to use land located on or near the treatment plant. President Wright suggested Mr. Grasha reach out to the General Manager to answer his questions.

ADJOURN

President Wright adjourned the meeting at 3:54 PM

Respectfully,

Arden Wallum
Secretary of the Board of Directors



BOARD OF DIRECTORS REGULAR MEETING MINUTES

Monday, July 19, 2021 at 3:00 PM

Via Teleconference – No Live Attendance

CALL TO ORDER

President Wright called the meeting to order at 3:00 PM

PLEDGE OF ALLEGIANCE

Led by General Manager, Arden Wallum

ROLL CALL

BOARD MEMBERS PRESENT: President Nancy Wright, Vice President Russ Martin, Director Randy Duncan, Director Steve Grasha

BOARD MEMBER(S) ABSENT: Director Ivan Sewell

STAFF MEMBERS PRESENT: Wallum, Petee, Macy, Lucas, Hoffert, Ceja, Friend, Hernandez, Pelton, Martinez, Santos, Murphy

RULES OF PROCEDURE

Rules of Procedure were ready by General Counsel, John Pinkney.

First all noticed meetings are conducted using Rosenberg’s Rules of Order as procedural guidance. Directors should refrain from responding directly to public comment at meetings of the Board. The President of the Board presides at all meetings and decides all points of order and procedure during meetings. The President is responsible for maintenance and decorum at all Board meetings. No persons shall be allowed to speak who is not first been recognized by the President. All questions and remarks should be addressed to the President as the presiding officer. No member of the Board should speak more than once upon any one subject until every other member on the Board, wishing to speak on the subject shall have been given the opportunity to speak. No Board member shall interfere with the orderly progress of a Board meeting. In order to ensure the orderly progress of Board meetings the Board President regulates the amount of time to be dedicated to a particular agenda item.”

PUBLIC INPUT

No general public input

COVID-19 UPDATE AND DISCUSSION

Nothing further to add

EMPLOYEE RECOGNITION

HUMAN RESOURCES REPORT

The Board acknowledged the following employees:

ANNIVERSARIES

Michael Moore Field Operations Technician II 2 Years

PROMOTIONS

Julio Martinez - Water Production Operator I, formerly Field Operations Technician I

CERTIFICATIONS/EDUCATIONAL ACCOMPLISHMENTS

Jason Weekley-Distribution Grade 3

ACTION ITEMS

ORDINANCE 2021-01 - AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MISSION SPRINGS WATER DISTRICT REPEALING ORDINANCE NO. 2014-01, AND SECTION 15 OF ORDINANCE NO. 93-3, AND REPLACING THE SAME BY ADOPTING THE 2021 WATER SHORTAGE CONTINGENCY PLAN.

The Board waived the reading and adopted Ordinance No. 2021-01, adopting, and implementing the 2021 Water Shortage Contingency Plan.

Mr. Wallum reiterated his statements from the Study Session last week.

Motion made by Vice President Martin, Seconded by Director Grasha.

Voting Yea: President Wright, Vice President Martin, Director Duncan, Director Grasha

DISCUSSION ITEMS

GROUNDWATER SUSTAINABILITY PLAN UPDATE

Nothing further to add

MSWD REGIONAL WATER RECLAMATION FACILITY UPDATE

Bid opening is on Thursday. Nothing further to add.

CRITICAL SERVICES CENTER AND ADMINISTRATION BUILDING UPDATE

Nothing further to add

CONSENT AGENDA

Motion made by Vice President Martin, Seconded by Director Grasha.

Voting Yea: President Wright, Vice President Martin, Director Duncan, Director Grasha

APPROVAL OF MINUTES

It is recommended to approve the minutes as follows:

June 9, 2021 - Special Meeting/Workshop

June 17, 2021 - Study Session

June 21, 2021 - Board Meeting

REGISTER OF DEMANDS

The register of demands totaling \$1,962,330.00

ACCEPTANCE OF BILL OF SALE FOR THE DESERT HOT SPRINGS LIBRARY

The Board authorized the General Manager to execute the Bill of Sale for the Water and Sewer Infrastructure for the DHS Library project located at the northeast corner of Palm Drive and Park Lane, Desert Hot Springs as contributed assets.

DIRECTOR'S REPORTS

UPCOMING EVENTS AND DIRECTOR REPORTS

Vice President Martin reported he attended the following events: 6/10 CVCC Meeting, 6/22 Tribal Water Authority Meeting, 6/1 DHS City Council Meeting. 6/3 DVBA Legislative Meeting, 6/8 RivCo Board of Supervisors Meeting, 6/15 DHS City Council Meeting, 6/22 PS Chamber State of the City Luncheon

Director Duncan reported he attended the following events: 6/1 DWA Board Meeting, CVWD Board Meeting, 6/15 DWA Board Meeting, 6/22 CVWD Board Meeting

REPORTS

GENERAL MANAGER'S REPORT

Mr. Wallum commented on the passing of Congressman Jerry Lewis.

Arturo Ceja gave the financial report.

Brian Macy gave the Public Relations report.

DISTRICT COUNSEL COMMENTS

Nothing to report today, no closed session.

DIRECTOR COMMENTS

Director Duncan noted the governor has no problem with a water restriction for the State, but he has no problem releasing water from the Delta...Director Duncan commented "seems to me like a one-way street."

ADJOURN

With no further business, President Wright adjourned the meeting at 3:41 P.M.

Respectfully,

Arden Wallum
Secretary of the Board of Directors



BOARD OF DIRECTORS SPECIAL MEETING MINUTES

Monday, August 16, 2021 at 3:00 PM

Via Teleconference – No Live Attendance

CALL TO ORDER

President Wright called the meeting to order at 3:00 PM.

ROLL CALL

BOARD MEMBERS PRESENT: President Nancy Wright, Vice President Russ Martin, Director Randy Duncan, Director Ivan Sewell

BOARD MEMBER(S) ABSENT: Director Steve Grasha

STAFF MEMBERS PRESENT: Wallum, Macy, Friend, Ceja, Petee, Lucas, Alzamar, Scott, Santos, Pelton, Morin

PUBLIC INPUT

No general public input.

ACTION/DISCUSSION ITEMS

1. JULY 20, 2021, ARTICLE RELATED TO SPILL AT HORTON TREATMENT PLANT

The Board authorized the Board President to issue a response to Director Grasha's July 20th article related to the spill at the Horton Treatment Plant and give direction to the General Manager to distribute the response.

President Wright made opening comments. She then asked the Secretary of the Board, Arden Wallum to read aloud the purposed letter to Cindy Uken. This letter is transcribed verbatim:

Response of President NANCY WRIGHT to CINDY UKEN and the Uken Report

Re:Uken Report "Uncover the Facts," July 20, 2021

Ms. Uken,

It has come to my attention that on July 20, 2021, you reported statements by Steve Grasha, who represented himself as a Director on the Mission Springs Water District Board of Directors. Your article included, and was based on a number of inaccurate, inflammatory statements which I am requesting be retracted by you and your organization and corrected by posting this response, verbatim, on your blog.

I agree completely in uncovering facts that are important to my community; but I draw the line when "facts" are distorted, manufactured and deceitful. Please share with your readers the following, all of which I believe is verifiable and accurate, regarding the District's

inadvertent discharge of treated wastewater that occurred in October 2020. Had you taken the time to contact the District or the State regulatory agency over accidental spills of treated sewage or assumed the ethical responsibility with which all journalists are charged, you could easily and quickly have verified the facts before you published this article. Unfortunately, very little of the information you reported bears any semblance to the truth.

MSWD staff are professional, knowledgeable and experienced in providing water and wastewater service to the District's customers, and also understand the requirements of state and federal agencies charged with permitting and setting standards applicable to the District's operations.

You intend that your readers believe what you write. In this blog article, and others you have published, instead of providing accurate information on which people can rely, you have reported facts and statements made by Steve Grasha, most of which are verifiably inaccurate or outright lies, seemingly to support some unfathomable private agenda. A lie is when someone knowingly makes a false statement in order to mislead others. This blog article is based almost entirely on premeditated, inflammatory lies, with the effect of misleading the public and causing unnecessary public concern and panic.

In the order raised by your blog article, now LET'S SET THE RECORD STRAIGHT:

1. Your headline states: "MSWD DIRECTOR CLAIMS MISSION SPRINGS WATER DISTRICT'S 'INTENTIONAL ACT OF DUMPING RAW COVID-INFECTED SEWAGE' INTO THE NEIGHBORHOODS KILLED PEOPLE"

There was no "intentional" act of "dumping." On October 3, 2020, TREATED effluent, which was permitted and tested prior to its discharge, ACCIDENTLY overflowed via a breach in a temporary holding pond. This was not a "long term" or "ongoing release of COVID-infected Sewage." The accidental release was discovered and restrained within just a few hours, when District staff immediately began to notify neighboring residents and initiated the cleanup process. No private dwelling was damaged or affected, and the cleanup was accomplished in less than 24 hours. The treated effluent was not raw sewage. It had been treated to a standard which allowed it to be discharged from the wastewater treatment plant into recharge basins. The "spill" also did not "kill" or, to our knowledge, make anyone sick. These facts could have been easily verified by a simple call to the District's General Manager.

Wastewater treatment plants are designed to collect raw sewage from our homes and businesses, and treat it to strict standards that are monitored and enforced by regular testing and reporting to the State of California Regional Water Quality Control Board (RWQCB). When treated effluent leaves the wastewater treatment plant, it is intended to be placed in recharge ponds, where it percolates into the groundwater. While it is not treated to drinking standards, it also is not "raw sewage."

Just to further clarify the "facts," during the COVID-19 pandemic, more and more people were working from home (or were unemployed); children were out of school, and unusually

high amounts of “disposable” wipes were being flushed down toilets throughout our community. Wastewater treatment plants are not designed or equipped to handle the extreme conditions that were experienced during the pandemic. It was this condition that caused the District to resort to a temporary holding pond for excess TREATED wastewater. I do not anticipate this will happen again as the District is currently in the process of expanding its wastewater capacity by constructing a new regional wastewater treatment facility.

2. You state: “He is seeking the help of a chief investigator in the Riverside County District Attorney’s office,” where he has apparently requested “a proper and thorough criminal investigation [which] would likely prove the “spill” of “raw COVID infected sewage” . . . “is in violation of every environmental crime law imaginable.”

First, I would like to point out that Mr. Grasha is not authorized to speak for the District on this matter, nor is he a water quality expert or attorney. The statements attributed to him are deliberately misleading and dishonest.

In addition to promptly cleaning up the spill and notifying neighboring residents, it was the District that reported the spill to the RWQCB. The reporting was handled routinely at the staff level. It is the RWQCB that has jurisdiction over this matter and deals with similar spills that occur with other agencies. While all wastewater plant operators strive to avoid spills, they do occur from time to time and the RWQCB deals with them from a regulatory standpoint. The District is working and fully cooperating with the RWQCB regarding this incident, and will continue to do so.

I can only assume the District Attorney’s office understands this better than Mr. Grasha and has confirmed that this matter is being handled by the appropriate regulatory agency, the RWQCB.

3. You repeat: “Millions of gallons of untreated COVID-infected sewage poured into adjacent neighborhoods where children and families live and play.”

The report to the RWQCB provides accurate details of the breach, which resulted in fewer than a million gallons of treated effluent being released.

4. You state, in a single paragraph: “This allegation may be proven by a simple audit of the solid waste disposal by MSWD’s solid waste hauler, Grasha alleges. He claims the waste not trucked to the licensed disposal facility but was released into the neighborhoods in an attempt to coverup the ‘ongoing and never-ending acts of depravity’ to coverup for years of horrid leadership. Grasha alleges one of those acts, giving away critical district-owned [land?] meant for the expansion of the Horton Wastewater Treatment Plant, was instead used for a city park to curry favor with voters at the cost of dumping millions of gallons of raw COVID infected sewage into the neighboring community filled with innocent children and families.”

This barely intelligible reporting appears to confirm a number of unsubstantiated, uneducated claims. Mr. Grasha, who was given a comprehensive tour of the wastewater

treatment plant following his election in 2018, seems to have forgotten most of what he was taught. The statements attributed to him in this article suggest that he remains uninformed and unfamiliar with the operation of wastewater treatment plants or the regulatory agencies with jurisdiction over their operation. For example, the treatment process results in waste solids being trucked from the plant to a licensed disposal facility, and the treated liquid effluent transferred to recharge ponds where it percolates into the groundwater. Clearly, a "simple audit of the solid waste disposal" will not provide any information regarding the release of treated effluent from the temporary holding pond. We are held to a strict standard requiring that we keep detailed records of our plant processes which show that we have properly operated our plant.

The truth is that wastewater treatment plants do unfortunately from time to time, experience spills despite best efforts to avoid them. Again, the spill at issue involved treated wastewater and the District promptly responded by cleaning it up and notifying nearby affected neighborhoods. This spill was caused by an accidental breach of a dike wall on a temporary holding pond and not because of improper operation of the plant. Neither Mr. Grasha, nor I, contributed to or participated in the effort to respond to the spill or notify residents. Nor has either of us been directly involved with the District's efforts to notify the RWQCB or worked with that agency in response to the incident. Nonetheless, Mr. Grasha, and you, have chosen to spread dangerous, inflammatory and intentionally false misinformation about the spill within the community.

In this poorly written and barely intelligible statement attributed to Mr. Grasha, the short-term, non-threatening treated effluent spill is also somehow connected with the District's 1987 LEASE of temporarily excess land to the CITY OF DESERT HOT SPRINGS for use as a community park. This is no "land give-away" and to tie this to a community gesture over 30 years ago is unbelievable to the point of being ludicrous. Once again, this statement by Mr. Grasha is baseless and totally unrelated to the effluent spill.

5. You quote Mr. Grasha: "These acts of depravity MUST be fully investigated by CRIMINAL investigators and not the clerks that work directly for Nancy Wright who chairs both the agency charged with investigation and the agency that did the likely criminal dumping of raw COVID infected sewage into our neighborhoods."

As you are aware, I am and have for many years been an elected member of the District's board of directors. In accordance with Water Code sections 13200 et seq., I have also been appointed by three Governors to the Colorado River Basin Regional Water Quality Control Board (RWCQB). Water Code section 13201 contemplates that the Governor will appoint knowledgeable and experienced board members "from the public and non-public sectors," with "demonstrated interest or proven ability in the field of water quality, including water pollution control, water resource management, water use, or water protection." Water Code section 13206 states: "Public officers associated with any area of government, including planning or water, and whether elected or appointed, may be appointed to, and serve contemporaneously as members of, a regional [water quality control] board." That I may serve as an elected director of the District and an appointed member of the RWQCB is a well-settled matter of law, which was confirmed by the District and the State of California

before I was first appointed. Mr. Grasha's uninformed and self-serving suggestion that it is somehow improper for me to serve on both agency boards is without merit. I have not and will not participate in any RWQCB discussions about the effluent spill, and my participation and actions are guided by legal counsel of the RWQCB (the Attorney General's office) and the District. There is nothing improper or illegal about my service on both agency boards.

6. You quote Mr. Grasha: "An audit of solid waste disposal records and truck weights and trips will likely show that sewage was not treated to the appropriate safety levels potentially causing the death rate from COVID in the neighborhood to be double that of other areas of Riverside County, Grasha claims;" and "The COVID death rate in the area of the intentional sewage release seems to be about double of neighboring communities."

The above statement attributed to Mr. Grasha confirms that even after more than two years as an elected official of the District he remains completely ignorant of how wastewater treatment plants work. He should know, for example, that "disposal records, truck weights and trips" only indicate the volume of solids removed and are mostly associated with loading to the treatment plant and not the treatment levels or effluent standard. More important is the fact that the District tests its effluent for certain constituents and has always met the strict standards set by the RWQCB. This compliance is well documented. There is further no evidence or indication that the District's treated wastewater contributed to COVID infections or the death rate from COVID anywhere within the District.

7. You state: "That [the audit of District records] could prove challenging as Grasha alleges the email server was removed from the district office likely containing evidence that may help to prove the (sic) this was an intentional act that may have literally killed people."

Just to be clear, the email server was not removed from the District's office. Email upgrades were recently made by the District's IT professionals, to improve security and performance. The District's records were not affected by the upgrades.

8. You quote Mr. Grasha: "A simple water-use restriction would have saved lives but was not (ordered) to avoid scrutiny by the public in the closing days of the November election." . . . They may have killed people for their own political benefit."

If Mr. Grasha had even a rudimentary understanding of the wastewater treatment process and the wastewater system operated by the agency for which he is an elected Board member, he would have known it is impossible to impose a "water use restriction" on wastewater. For someone who described himself on election materials as a "water systems engineer," his statement demonstrates his complete lack of understanding about water and wastewater operations.

9. You state: "In a July 8, 2021 letter to the California Regional Water Quality Control Board, which oversees MSWD, iArden (sic) Wallum General Manager/Chief Engineer for

MSWD, writes that immediate corrective and preventative actions have been implemented to bring the discharge into full compliance."

This statement is one of very few in your report that is accurate.

10. You state: "Grasha was elected to the Mission Springs Water District Board in November 2018 with more votes than anyone in the 70-year history of the Mission Springs Water District. Since then, he has been investigated for possible residency violations as they relate to his seat on the board. The investigation found Grasha in full compliance.

The District was not involved in any investigation of Mr. Grasha's election qualification or residency. However, it has been noted that just before the election he moved a camper trailer into a recreational campground that specifically requires in its Rules and Regulations that "the facilities are operated for recreational purposes by the members and may not be used as a residence." He claims it is this camper trailer that provides his place of residence to qualify him for election to the District's Board. However, he provides only a post office box number for delivery of his District mail; and there is apparently no record of Mr. Grasha ever having had a water or sewer service account with the District (meaning he is not and never has been a customer of the District he serves).

11. You describe an incident involving Mr. Grasha's disruption of a District meeting: "Grasha, known for being outspoken and sometimes loud, prompted his colleagues in January 2020 to call law enforcement. Police were called to a Mission Springs Water District Study Session to escort Grasha from the meeting after a discussion escalated into yelling and foul language."

Again, although this statement is basically accurate, and his rage did prompt the police to remove him from the meeting; but its purpose in this report is unclear. As anyone who has attended the District's meetings knows, Mr. Grasha has been disruptive, aggressive and impolite at most Board meetings, making basic or professional decorum practically impossible.

*Finally, you end your report by demonstrating what appears to be your support and glorification of Mr. Grasha, and your ratification of his untruthful, deliberately inflammatory misrepresentations, by stating: "**Despite efforts to deter and silence him, Grasha remains undeterred.**"*

In this instance, your inflammatory, baseless reporting of Mr. Grasha's statements without corroboration of the facts or disclaimer certainly appears to have been intended to incite fear and panic in the residents of our community.

AGAIN, LET'S SET THE RECORD STRAIGHT. YOU DIDN'T QUESTION THE VERACITY OF MR. GRASHA'S CLAIMS BEFORE YOU PUBLISHED YOUR REPORT. NOW, PLEASE CONSIDER THE TRUTH, PRESENTED WITHOUT HYSTERIA, THREAT OR INUENDO.

PLEASE POST THIS RESPONSE ON YOUR BLOG.

***Thank you,
Nancy Wright
President MSWD***

PUBLIC COMMENT:

Janet Wilson asked where she could find the letter read at today's meeting. (She was directed by staff where to find the letter). She then asked if President Wright was saying that Director Grasha had potentially committed crimes. President Wright noted she was making a general statement about falsehood and crime. Vice President Martin noted it is illegal to make a false report to police of the district attorney. While the Uken Report asserts that Grasha did make false statements to the district attorney, a proper investigation would be required to determine if he made those false reports and if that did constitute a possible criminal action.

Russell Betts asked if the district had gotten word about any potential fine to be assessed by the RWQCB. GM Wallum responded that the District has not heard anything about a fine. Mr. Betts then noted the following points: a holding pond was constructed without a permit, the holding pond breached and the District did not notify the RWQCB in a timely manner.

There was a brief discussion by the Board, the Board concurred on the current letter being distributed as it stands.

Motion made by Vice President Martin, Seconded by Director Duncan.

Voting Yea: President Wright, Vice President Martin, Director Duncan, Director Sewell

DIRECTORS' COMMENTS

President Martin said that disagreement and diversity of opinion on the board were okay and expected, but that personal attacks, threats or intentionally making outrageous lies to inflame public opinion for political gain or to intimidate fellow board members were not acceptable.

Director Sewell said he completely agreed with the response as written and that he is hopeful the lies in the article are going to be corrected on the Uken Report.

Director Duncan recounted how he had to deal with Grasha's lies frequently while he was board president. He said none of those incidents sank to the level of the article in Uken Report.

President Wright agreed with Duncan, saying the district and the board had ignored several of Grasha's lies published in various media.

ADJOURN

With no further business, President Wright adjourned the meeting at 3:45 PM.

Respectfully,

Arden Wallum
Secretary of the Board of Directors

CHECK NUMBER	CHECK DATE	PAID TO VENDOR	DISBURSEMENT DESCRIPTION	OPERATING	CAPITAL	TOTAL
72812	07-08-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS ACCRUED LIABILITY CLASSIC	512,249.00		512,249.00
			PERS ACCRUED LIABILITY PEPR			
72874	07-16-21	THE VAN DYKE CORPORATION	PROGRESS PAYMENT 3	0.00	310,109.92	310,109.92
72908	07-22-21	THE VAN DYKE CORPORATION	PROGRESS PYMT #4	0.00	181,588.23	181,588.23
72883	07-22-21	COUNTY OF RIVERSIDE	ADJUST DISTRICT FACILITIES-WATER/R&R/ASPHALT	0.00	127,669.50	127,669.50
9995192	07-16-21	WELLS FARGO BANK	AUTO DEP. PPE 07/09	113,463.76		113,463.76
9995060	07-02-21	WELLS FARGO BANK	AUTO DEPOSIT	111,807.83		111,807.83
9995355	07-30-21	WELLS FARGO BANK	AUTO DEPOSIT PPE 07/23	111,557.08		111,557.08
72808	07-08-21	ACWA-JPIA HEALTH BENEFITS AUTH.	MEDICAL/VISION AUGUST 2021	94,771.17		94,771.17
72888	07-22-21	DOWNING CONSTRUCTION, INC.	PROGRESS PYMT #4	0.00	69,889.81	69,889.81
9995200	07-19-21	WELLS FARGO BANK	FED TAX DEPOSIT	59,935.89		59,935.89
9995202	07-19-21	SLOVAK BARON EMPEY MURPHY & PINKNEY LLP	LEGAL SERVICES	47,192.50		47,192.50
9995061	07-02-21	WELLS FARGO BANK	FED TAX PPE 06.25	45,218.65		45,218.65
9995356	07-30-21	WELLS FARGO BANK	FED TAX PPE 07/23	42,927.36		42,927.36
72912	07-22-21	WALLACE & ASSOCIATES CONSULTING, INC.	CM & INSPECTION SERVICES JUNE 2021	0.00	40,645.00	40,645.00
72870	07-16-21	STURDIVAN EMERGENCY MANAGEMENT	AWIA RESILIENCE	0.00	31,500.00	31,500.00
72838	07-16-21	CV STRATEGIES	CCR PRINTING/MAILING POSTAGE	30,229.32		30,229.32
9995245	07-22-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 07/09	29,312.85		29,312.85
9995076	07-07-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 06/25	28,930.09		28,930.09
72918	07-29-21	B-81 PAVING INC	PAVING IN VARIOUS LOCATIONS	25,824.50		25,824.50
72809	07-08-21	ACWA/JOINT POWERS INSUR AUTH	PREPAID PROPERTY INSURANCE 2021/22	22,247.27		22,247.27
PR070921	07-09-21	EMPLOYEES	PAPER PAYROLL CHECKS	21,553.89		21,553.89
72914	07-29-21	AECOM TECHNICAL SERVICES INC.	DESIGN SERVICES	0.00	19,971.00	19,971.00
72875	07-16-21	UMETECH, INC.	IT SUPPORT	19,678.50	191.25	19,869.75
72909	07-22-21	TKE ENGINEERING, INC	GROUNDWATER SUSTAINABILITY/REGIONAL UWMP	4,132.50	15,454.00	19,586.50
72952	07-29-21	TULE RANCH/MAGAN FARMS	JUNE 2021 SLUDGE HAULING	18,934.93		18,934.93
9995287	07-22-21	US BANK CORPORATE TRUST SERVICES	AD #13 COUNTY FUND	16,814.85		16,814.85
9995195	07-15-21	WELLS FARGO BANK	AUTO DEP. SPECIAL 07/15	15,859.18		15,859.18
72943	07-29-21	SOUTHERN CALIF EDISON	ELECTRIC BILL	15,690.64		15,690.64
9995064	07-02-21	BERKADIA COMMERCIAL MORTGAGE	AD #7 LOAN	15,102.50		15,102.50
72924	07-29-21	DESERT WATER AGENCY	CV WATER COUNTS YRLY SHARE COST	14,880.00		14,880.00
72806	07-01-21	USA BLUEBOOK	GRUNDFOS PUMPS	14,299.14		14,299.14
			GRUNDFOS REPAIR KIT			
			PRESSURE GAUGE			
			REPAIR KIT			
			REPAIR KITS			
			REPLACEMENT SAMPLE CELLS			
72932	07-29-21	LAYNE CHRISTENSEN COMPANY	REPAIRS	14,157.95		14,157.95
72889	07-22-21	FERGUSON WATERWORKS #1083	NEPTUNE METER	13,728.85		13,728.85
72879	07-16-21	WESTERN PUMP INC	FUEL PUMP REPAIR	13,626.06		13,626.06
9995201	07-19-21	STATE OF CA EDD	STATE TAX PPE 07/09	12,492.56		12,492.56
72951	07-29-21	TKE ENGINEERING, INC	MAY 2021 C&M SERVICES	0.00	12,252.35	12,252.35
			MAY 2021 DESIGN SERVICES			
72793	07-01-21	INLAND WATER WORKS SUPPLY CO.	INVENTORY ITEMS	11,445.47		11,445.47
72784	07-01-21	BECK OIL, INC.	DIESEL	10,796.21		10,796.21
			UNLEADED GASOLINE			
72922	07-29-21	CV STRATEGIES		9,975.00		9,975.00

CHECK NUMBER	CHECK DATE	PAID TO VENDOR	DISBURSEMENT DESCRIPTION	OPERATING	CAPITAL	TOTAL
			CRISIS COMM. SUPPORT			
			SOCIAL MEDIA-JUNE 2021			
			UNDERSTANDING YOUR BILL VIDEO			
72926	07-29-21	ENTERPRISE FM TRUST	JULY 2021 MONTHLY LEASE CHARGES	9,968.43		9,968.43
9995075	07-07-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 06/25	9,933.62		9,933.62
72920	07-29-21	BECK OIL, INC.	DIESEL FUEL	9,289.12		9,289.12
			UNLEADED GASOLINE			
9995244	07-21-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 07/09	9,135.22		9,135.22
9995360	07-30-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 07/23	8,974.95		8,974.95
72939	07-29-21	POLYDYNE, INC.	3 TOTES POLYMER SLUDGE	8,849.58		8,849.58
9995062	07-02-21	STATE OF CA EDD	STATE TAX PPE 06.25	8,811.24		8,811.24
9995357	07-30-21	STATE OF CA EDD	STATE TAX PPE 07/23	8,359.24		8,359.24
72899	07-22-21	LINKO TECHNOLOGY INC.	ANNUAL SUB. 21/22	8,185.00		8,185.00
72840	07-16-21	DESERT VALLEY DISP INC	ADMIN BLDG JUNE SERVICE	7,453.36		7,453.36
			CORP YARD JUNE SERVICE			
			SERVICE CHARGE			
			VERBENA SERVICE CHARGE			
72792	07-01-21	INFOSEND INC	MONTHLY BILLING CHARGES	7,037.54		7,037.54
72813	07-08-21	CARL OTTESON'S CERTIFIED BACKFLOW	JUNE BACKFLOW TEST	6,900.00		6,900.00
72851	07-16-21	HOLT ARCHITECTURE	ADMIN BUILDING EXHIBIT	0.00	6,780.00	6,780.00
72944	07-29-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	6,265.44		6,265.44
			FLEET SERVICE REPAIR			
72940	07-29-21	SANDERSON LANDSCAPE SOLUTIONS	LANDSCAPING	6,010.00		6,010.00
72901	07-22-21	MANPOWER US INC.	ACCOUNTING TEMP	6,008.08		6,008.08
			STAFFING SERVICES			
72817	07-08-21	GOUGH SYSTEMS	UNIDATA MAINTENANCE	3,275.00	2,225.00	5,500.00
72794	07-01-21	JACK HENRY & ASSOCIATES, INC.	ANNUAL SCANNER MAINT.	5,120.40		5,120.40
72882	07-22-21	COLANTUONO, HIGHSMITH & WHATLEY, PC	LEGAL SERVICES	5,113.50		5,113.50
72947	07-29-21	SUNPOWER CORPORATION, SYSTEMS	QUARTERLY SERVICE FEE	5,002.50		5,002.50
72804	07-01-21	SOUTHERN CALIF EDISON CO	GRANT OUT PROCESS DEPOSIT	5,000.00		5,000.00
72921	07-29-21	COVE ELECTRIC, INC.	INSTALL ELECTRIC CIRCUITS TO CONTAINER	4,895.00		4,895.00
72839	07-16-21	CVAG	MEMBERSHIP DUES	4,587.00		4,587.00
72852	07-16-21	HOME DEPOT CRC PROGRAM	SUPPLIES & TOOLS	4,484.04		4,484.04
9995063	07-02-21	BERKADIA COMMERCIAL MORTGAGE	AD #4 LOAN	4,455.00		4,455.00
72885	07-22-21	DLT SOLUTIONS LLC	AUTOCAD SOFTWARE ANNUAL SUB.	4,112.76		4,112.76
72814	07-08-21	COUNTY OF RIVERSIDE AUDITOR CONTROLLER	LAFCO FY22 FEES	4,080.72		4,080.72
72834	07-16-21	CARPI & CLAY, INC	JUNE FEDERAL ADVOCACY	4,000.00		4,000.00
72938	07-29-21	PLUMBERS DEPOT INC	NOZZLES/POLES/MISC. ITEMS	3,961.16		3,961.16
			Y-STRAINER			
72846	07-16-21	ENVIROGEN TECHNOLOGIES	URANIUM TREATMENT	3,938.37		3,938.37
72871	07-16-21	TCI BUSINESS CAPITAL	TEMP STAFFING - WW	3,910.00		3,910.00
72911	07-22-21	VERIZON WIRELESS	CELL PHONE BILL	3,832.35		3,832.35
72956	07-29-21	WEST COAST SAFETY SUPPLY	NEW GAS DETECTOR	3,725.15		3,725.15
72847	07-16-21	FERGUSON WATERWORKS #1083	METER BOX AND LID	3,505.11		3,505.11
72927	07-29-21	EXECUTIVE FACILITIES SERVICES, INC.	JULY CLEANING SERVICE	3,464.58		3,464.58
			JULY DISINFECTING SERVICES			
72930	07-29-21	INFOSEND INC	MONTHLY BILLING SRVS INV194878	3,463.82		3,463.82

CHECK NUMBER	CHECK DATE	PAID TO VENDOR	DISBURSEMENT DESCRIPTION	OPERATING	CAPITAL	TOTAL
72860	07-16-21	MICHAEL JEAN KLUTTS	WORK ON WELL 33	3,419.87		3,419.87
72791	07-01-21	HEITEC	DRIVE JOBS	3,277.50		3,277.50
72796	07-01-21	LITIGATION SERVICES	DEPO. FEE MASTER METER	3,194.85		3,194.85
			DEPOSITION OF MASTER METER			
72929	07-29-21	HAAKER EQUIPMENT COMPANY	RENEWABLE PARTS FOR COLLECTING JETTING	3,193.72		3,193.72
			SWAGE MACHINE FOR COLLECTIONS JETTING			
72896	07-22-21	KAMAN INDUSTRIAL TECHNOLOGIES	REPLACEMENT BEARING	3,041.38		3,041.38
72856	07-16-21	LITIGATION SERVICES	DEPOSITION FOR MM EMP.	2,860.00		2,860.00
72933	07-29-21	MANPOWER US INC.	ACCOUNTING TEMP	2,423.82		2,423.82
			STAFFING SERVICES			
72810	07-08-21	ACWA/JOINT POWERS INSURANCE AUTHORITY	ESPOSITO/PATNEUDE RESTITUTION	2,400.00		2,400.00
72844	07-16-21	DESERT COVE ASSISTED LIVING	DESERT COVE TOILET REBATE PROGRAM	2,389.25		2,389.25
72837	07-16-21	CS-AMSCO	4" PLUG	2,377.45		2,377.45
72917	07-29-21	AWWA	AWWA MEMBERSHIP2021-2022	2,373.00		2,373.00
72818	07-08-21	MANPOWER US INC.	STAFFING SERVICES	2,045.95		2,045.95
72850	07-16-21	HDS WHITE CAP CONST SUPPLY	CUTOFF WHEELS-SHOVELS-NITRILE GLOVES	1,998.70		1,998.70
			HYDRATION FREEZE POPS			
			SQWINCHER HYDRATION FREEZE POPS			
			STRAW WATTLE			
72835	07-16-21	CASAMAR GROUP, LLC	LABOR COMPLIANCE MONITORING	0.00	1,879.97	1,879.97
72906	07-22-21	SOUTHERN CALIF EDISON	ELECTRIC BILL - WELL 26A/WELL25A/WOODRIDGE	1,856.27		1,856.27
72913	07-22-21	WATERLINE TECHNOLOGIES INC.	10 DRUMS REFILLED	1,852.22		1,852.22
			8 DRUMS REFILLED			
72919	07-29-21	BABCOCK LABORATORIES, INC.	PFAS TESTING 2ND QTR-2021	1,851.00		1,851.00
			TOTAL N SAMPLING			
72822	07-08-21	POWERPLAN OIB	UNIT 117 HYDRAULIC REPAIR	1,824.11		1,824.11
72953	07-29-21	USA BLUEBOOK	GRUNDFOS QUILL	1,678.79		1,678.79
			INJECTION QUILL			
72842	07-16-21	DESERT RECYCLING INC.	CONCRETE REMOVAL	1,650.00		1,650.00
			ROLL OFF CHARGE			
72861	07-16-21	MILLARD PUBLISHING SERVICES	WEBSITE PLANT DATABASE	1,595.00		1,595.00
72869	07-16-21	STAPLES	OFFICE SUPPLIES	1,577.03		1,577.03
72830	07-16-21	APRIL LEE SCOTT	A.SCOTT TUITION REIMB.	1,553.49		1,553.49
72797	07-01-21	MANPOWER US INC.	STAFFING SERVICES	1,550.00		1,550.00
72935	07-29-21	ON POWER INDUSTRIES, LLC	TROUBLESHOOT INF. PUMP	1,485.00		1,485.00
72880	07-22-21	AECOM TECHNICAL SERVICES INC.	WELL 42 REDESIGN SERVICES	0.00	1,362.50	1,362.50
72950	07-29-21	TCI BUSINESS CAPITAL	WW STAFFING SERVICE	1,360.00		1,360.00
72892	07-22-21	INLAND WATER WORKS SUPPLY CO.	MTR BUSHING	1,294.62		1,294.62
72949	07-29-21	T4 SPATIAL, LLC	AUG. 2021 MONTHLY CCTV STORAGE	1,250.00		1,250.00
72907	07-22-21	T4 SPATIAL, LLC	CCTV - JULY 2021	1,188.00		1,188.00
72853	07-16-21	INFOSEND INC	TAX ROLL BILL INSERT	1,173.99		1,173.99
72858	07-16-21	MANPOWER US INC.	STAFFING SERVICES	1,152.75		1,152.75
72862	07-16-21	O'REILLY AUTOMOTIVE, INC.	55 GAL OIL	1,126.16		1,126.16
			CREDIT FOR REQ# 111108			
			HORTON PLANT GREASE & OIL			
72955	07-29-21	WATERLINE TECHNOLOGIES INC.	9 DRUMS REFILLED	1,053.63		1,053.63
72807	07-01-21	WATERLINE TECHNOLOGIES INC.	10 DRUMS REFILLED	1,029.01		1,029.01

CHECK NUMBER	CHECK DATE	PAID TO VENDOR	DISBURSEMENT DESCRIPTION	OPERATING	CAPITAL	TOTAL
72785	07-01-21	BOBBIE STEELMAN	ACCOUNT REFUND 13644 CERRITA WAY	1,000.00		1,000.00
72783	07-01-21	ACWA/JOINT POWERS INSUR AUTH	EXCESS CRIME INSURACE	900.00		900.00
72823	07-08-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	898.96		898.96
72815	07-08-21	DESERT TIRES AND AUTO REPAIR	UNIT 399 TIRES	868.57		868.57
72826	07-08-21	WATERLINE TECHNOLOGIES INC.	8 DRUMS REFILLED	823.21		823.21
72877	07-16-21	USA BLUEBOOK	MANHOLE COVER	729.89		729.89
			REPLACEMENT 2 DRUM PALLET			
			SWING SAMPLER BOTTLE			
72916	07-29-21	ARAMARK UNIFORM SERVICES, INC	UNIFORM SERVICES	726.34		726.34
72887	07-22-21	DOWNING CONSTRUCTION	ACCOUNT REFUND THUMB DR & INDIAN	714.00		714.00
72836	07-16-21	CASEY DOLAN	JULY DIGITAL AD MGMT	650.00		650.00
72945	07-29-21	SOUTH COAST AIR QUALITY	AQMD PERMIT PROCESSING	0.00	615.65	615.65
72816	07-08-21	GLENN B. DORNING, INC.	TRAILER HEADLIGHT	615.30		615.30
72848	07-16-21	FRONTIER	ADMIN TELEPHONE SERVICE	614.38		614.38
72946	07-29-21	STAPLES	OFFICE SUPPLIES	611.09		611.09
72942	07-29-21	SOUTH COAST AIR QUALITY	FLAT FEE EMISSIONS	582.74		582.74
			GENERATOR PERMIT			
72865	07-16-21	RTK REFRIGERATION	ICE MACHINE REPAIR @ YARD	551.24		551.24
72881	07-22-21	ANDRZEJ LAZARUS	ACCOUNT REFUND 65565 ACOMA AVE #127	528.73		528.73
72891	07-22-21	INFOSEND INC	MONTHLY E-BILL SUPPORT & FEES	516.40		516.40
72819	07-08-21	MCMaster-CARR	RESTOCK PADLOCKS	501.82		501.82
72803	07-01-21	SOROPTIMIST HOUSE OF HOPE INC	SOROPTOMIST 40TH ANNIV. SPONSORSIP	500.00		500.00
72936	07-29-21	PARKHOUSE TIRE, INC	TIRE REPLACEMENT	474.15		474.15
PR071621	07-16-21	EMPLOYEES	PAPER PAYROLL CHECKS	456.47		456.47
72876	07-16-21	UNDERGROUND SERVICE ALERT	UNDERGROUND SERVICE ALERT	455.33		455.33
72884	07-22-21	COUNTY OF RIVERSIDE	ACCOUNT REFUND TAMARACK RD	416.66		416.66
72868	07-16-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET SERVICES	401.64		401.64
72915	07-29-21	ANSAFONE CONTACT CENTERS	ANSAFONE ANSWERING SERVICE	384.92		384.92
72954	07-29-21	WATER ENVIRONMENT FEDERATION	WEF MEMBERSHIP RENEWAL	382.00		382.00
72841	07-16-21	DESERT VALLEY BUILDERS ASSOCIATION	DVBA MEMBERSHIP RENEWAL	375.00		375.00
72828	07-16-21	AMANDA LUCAS	A.LUCAS RETIREMENT BFAS REIMB.	373.18		373.18
72873	07-16-21	THE GREATER COACHELLA VALLEY	GCVCC BOARD RETREAT	373.00		373.00
72831	07-16-21	ARAMARK UNIFORM SERVICES, INC	UNIFORM SERVICES	358.94		358.94
72941	07-29-21	SHRED-IT	SHREDDING SERVICE	354.60		354.60
72857	07-16-21	LUBRICATION ENGINEERS, INC	10 GAL MONOLEC	350.65		350.65
72805	07-01-21	STAPLES	OFFICE SUPPLIES	348.90		348.90
72827	07-08-21	XEROX CORPORATION	COPY LEASE EQUIPMENT	343.73		343.73
72845	07-16-21	EISENHOWER MEDICAL ASSOCIATES INC,	DOT PHYSICAL - CHAPMAN/RODRIGUEZ	310.00		310.00
72843	07-16-21	DESERT TIRES AND AUTO REPAIR	REPLACEMENT TIRE	304.38		304.38
72800	07-01-21	REBECCA HUTSON	TOILET REBATE PROGRAM - R.HUTSON	300.00		300.00
72829	07-16-21	ANDY GRUNNET	A.GRUNNET BOOT REIMB.	300.00		300.00
72788	07-01-21	DAVID PENA	D.PENA BOOT REIMB.	278.42		278.42
72886	07-22-21	DOTY BROS. EQUIPMENT CO.	ACCOUNT REFUND GARNET AVE EAST OF N. INDIAN CANYON	269.51		269.51
72878	07-16-21	VALLEY LOCK & SAFE	BATTERY REPLACEMENT	248.70		248.70
72864	07-16-21	POLLARD WATER.COM EAST	TUBE ROUNDER VICE GRIPS	223.58		223.58
72928	07-29-21	FARMER BROS CO	ADMIN COFFEE	209.19		209.19
72859	07-16-21	MATHESON TRI-GAS, INC	HD WORK GLOVES	206.88		206.88

CHECK NUMBER	CHECK DATE	PAID TO VENDOR	DISBURSEMENT DESCRIPTION	OPERATING	CAPITAL	TOTAL
72855	07-16-21	KILLER BEE PEST CONTROL	PEST CONTROL	205.00		205.00
72934	07-29-21	O'REILLY AUTOMOTIVE, INC.	BATTERY REPLACEMENT	176.74		176.74
72825	07-08-21	VALLEY LOCK & SAFE	NEW ID/LOCK CARDS	175.00		175.00
72832	07-16-21	BRINKS INCORPORATED	JULY MONTHLY SERVICE	169.49		169.49
72931	07-29-21	INLAND WATER WORKS SUPPLY CO.	MTR BUSHING	160.01		160.01
72863	07-16-21	PALM SPRINGS PEST CONTROL, INC.	PEST CONTROL	155.00		155.00
72854	07-16-21	JUAN HERNANDEZ	J.HERNANDEZ BOOT REIMB.	149.70		149.70
72937	07-29-21	PARKERS BUILDING SUPPLY	ADMIN LIGHT BULB REPLACEMENT	148.63		148.63
			FLAG FOR ADMIN			
			HOSE SPICKETS			
			IRRIGATION PARTS			
			SWAMP COOLER REPAIR			
72849	07-16-21	GRAINGER	MEASURING WHEEL 3 FT 2UJY6	138.34		138.34
			SYNTHETIC GREASESHC 4ZF49 QTY10			
72801	07-01-21	ROLANDO JIMENEZ	R.JIMENEZ BOOT REIMB.	130.49		130.49
72897	07-22-21	KIMBERLY STRUM	ACCOUNT REFUND 9802 SAN SIMEON DR	124.06		124.06
72872	07-16-21	THE UPS STORE #5062	CRANE CONTROLLER SHIPPING	121.03		121.03
			GAUGE SHIPPING			
			O.HOFFERT/B.MACY BUSINESS CARDS			
72795	07-01-21	JEFFREY R NUTTER	J.NUTTER BOOT REIMB.	120.85		120.85
72894	07-22-21	JAY YOON	ACCOUNT REFUND 12536 PALM DR	120.36		120.36
72900	07-22-21	LOTIS MACK	ACCOUNT REFUND 66975 DESERT VIEW AVE	119.84		119.84
72802	07-01-21	SHRED-IT	SHREDDING SERVICE	118.20		118.20
72824	07-08-21	SWRCB ACCOUNTING OFFICE	D-2 CERT	115.00		115.00
			T-1 CERT			
72790	07-01-21	HDS WHITE CAP CONST SUPPLY	HORTON PLANT NUTS/BOLTS	114.53		114.53
72787	07-01-21	DANGELO COMPANY	SWING CK	98.76		98.76
72798	07-01-21	O'REILLY AUTOMOTIVE, INC.	2 CASES MP GREASE	96.76		96.76
72923	07-29-21	CWEA	CWEA CERTIFICATE RENEWAL-JOEY M.	96.00		96.00
72904	07-22-21	QUADIENT FINANCE USA, INC.	POSTAGE REPLENISHMENT	92.83		92.83
72903	07-22-21	PLANIT REPROGRAPHICS	MODEL HOMES AND LANDSCAPE PLANS	85.65		85.65
			SCANS OF APPROVED PLANS			
			SCANS OF APPROVED PLANS/BOND COPIES			
72867	07-16-21	SIERRA BOYLE	S. BOYLE MILEAGE REIMB.	77.84		77.84
72905	07-22-21	SHAYNNA SILVER	ACCOUNT REFUND 9365 CALLE BARRANCA	62.74		62.74
72799	07-01-21	OASIS ESCROW	ACCOUNT REFUND 13880 OCOTILLO RD "B"	61.49		61.49
72948	07-29-21	SWRCB ACCOUNTING OFFICE	J.HERNANDEZ T2 RENEWAL	60.00		60.00
72866	07-16-21	RITA M. HUBER	PETTY CASH RECONCILIATION QTR 2.	57.88		57.88
72898	07-22-21	LINDSEY STAFFORD-WAGSTAFF	ACCOUNT REFUND 13721 MONUMENT ST	50.25		50.25
72821	07-08-21	PLANIT REPROGRAPHICS	B/W PRINTS + SCAN TO EMAIL	45.66		45.66
			LARGE B/W PRINTING			
72820	07-08-21	O'REILLY AUTOMOTIVE, INC.	REPLACEMENT WIPER BLADES	35.71		35.71
72789	07-01-21	DESERT ELECTRIC SUPPLY	REPLACEMENT FUSES	33.06		33.06
72910	07-22-21	TONY OMRI	ACCOUNT REFUND 16880 LAKESIDE CT	31.39		31.39
72893	07-22-21	JACOB EDDINGS	ACCOUNT REFUND 13875 LUIS DR "B"	30.15		30.15
72811	07-08-21	PARKERS BUILDING SUPPLY	MATERIALS FOR SERVICE REPAIR	29.14		29.14
			REPLACEMENT BOARD			

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72783	07-01-21	ACWA/JOINT POWERS INSUR AUTH	EXCESS CRIME INSURACE	900.00		900.00
72784	07-01-21	BECK OIL, INC.	DIESEL	10,796.21		10,796.21
			UNLEADED GASOLINE			
72785	07-01-21	BOBBIE STEELMAN	ACCOUNT REFUND 13644 CERRITA WAY	1,000.00		1,000.00
72786	07-01-21	PARKERS BUILDING SUPPLY	WEATHERSTRIP TAPE	3.22		3.22
72787	07-01-21	DANGELO COMPANY	SWING CK	98.76		98.76
72788	07-01-21	DAVID PENA	D.PENA BOOT REIMB.	278.42		278.42
72789	07-01-21	DESERT ELECTRIC SUPPLY	REPLACEMENT FUSES	33.06		33.06
72790	07-01-21	HDS WHITE CAP CONST SUPPLY	HORTON PLANT NUTS/BOLTS	114.53		114.53
72791	07-01-21	HEITEC	DRIVE JOBS	3,277.50		3,277.50
72792	07-01-21	INFOSEND INC	MONTHLY BILLING CHARGES	7,037.54		7,037.54
72793	07-01-21	INLAND WATER WORKS SUPPLY CO.	INVENTORY ITEMS	11,445.47		11,445.47
72794	07-01-21	JACK HENRY & ASSOCIATES,INC.	ANNUAL SCANNER MAINT.	5,120.40		5,120.40
72795	07-01-21	JEFFREY R NUTTER	J.NUTTER BOOT REIMB.	120.85		120.85
72796	07-01-21	LITIGATION SERVICES	DEPO. FEE MASTER METER	3,194.85		3,194.85
			DEPOSITION OF MASTER METER			
72797	07-01-21	MANPOWER US INC.	STAFFING SERVICES	1,550.00		1,550.00
72798	07-01-21	O'REILLY AUTOMOTIVE,INC.	2 CASES MP GREASE	96.76		96.76
72799	07-01-21	OASIS ESCROW	ACCOUNT REFUND 13880 OCOTILLO RD "B"	61.49		61.49
72800	07-01-21	REBECCA HUTSON	TOILET REBATE PROGRAM - R.HUTSON	300.00		300.00
72801	07-01-21	ROLANDO JIMENEZ	R.JIMENEZ BOOT REIMB.	130.49		130.49
72802	07-01-21	SHRED-IT	SHREDDING SERVICE	118.20		118.20
72803	07-01-21	SOROPTIMIST HOUSE OF HOPE INC	SOROPTOMIST 40TH ANNIV. SPONSORSIP	500.00		500.00
72804	07-01-21	SOUTHERN CALIF EDISON CO	GRANT OUT PROCESS DEPOSIT	5,000.00		5,000.00
72805	07-01-21	STAPLES	OFFICE SUPPLIES	348.90		348.90
72806	07-01-21	USA BLUEBOOK	GRUNDFOS PUMPS	14,299.14		14,299.14
			GRUNDFOS REPAIR KIT			
			PRESSURE GAUGE			
			REPAIR KIT			
			REPAIR KITS			
			REPLACEMENT SAMPLE CELLS			
72807	07-01-21	WATERLINE TECHNOLOGIES INC.	10 DRUMS REFILLED	1,029.01		1,029.01
72808	07-08-21	ACWA-JPIA HEALTH BENEFITS AUTH.	MEDICAL/VISION AUGUST 2021	94,771.17		94,771.17
72809	07-08-21	ACWA/JOINT POWERS INSUR AUTH	PREPAID PROPERTY INSURANCE 2021/22	22,247.27		22,247.27
72810	07-08-21	ACWA/JOINT POWERS INSURANCE AUTHORITY	ESPOSITO/PATNEUDE RESTITUTION	2,400.00		2,400.00
72811	07-08-21	PARKERS BUILDING SUPPLY	MATERIALS FOR SERVICE REPAIR	29.14		29.14
			REPLACEMENT BOARD			
			REPLACEMENT BULBS			
72812	07-08-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS ACCRUED LIABILITY CLASSIC	512,249.00		512,249.00
			PERS ACCRUED LIABILITY PEPRA			
72813	07-08-21	CARL OTTESON'S CERTIFIED BACKFLOW	JUNE BACKFLOW TEST	6,900.00		6,900.00
72814	07-08-21	COUNTY OF RIVERSIDE AUDITOR CONTROLLER	LAFCO FY22 FEES	4,080.72		4,080.72
72815	07-08-21	DESERT TIRES AND AUTO REPAIR	UNIT 399 TIRES	868.57		868.57
72816	07-08-21	GLENN B. DORNING, INC.	TRAILER HEADLIGHT	615.30		615.30
72817	07-08-21	GOUGH SYSTEMS	UNIDATA MAINTENANCE	3,275.00	2,225.00	5,500.00
72818	07-08-21	MANPOWER US INC.	STAFFING SERVICES	2,045.95		2,045.95
72819	07-08-21	MCMMASTER-CARR	RESTOCK PADLOCKS	501.82		501.82

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72820	07-08-21	O'REILLY AUTOMOTIVE,INC.	REPLACEMENT WIPER BLADES	35.71		35.71
72821	07-08-21	PLANIT REPROGRAPHICS	B/W PRINTS + SCAN TO EMAIL	45.66		45.66
			LARGE B/W PRINTING			
72822	07-08-21	POWERPLAN OIB	UNIT 117 HYDRAULIC REPAIR	1,824.11		1,824.11
72823	07-08-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	898.96		898.96
72824	07-08-21	SWRCB ACCOUNTING OFFICE	D-2 CERT	115.00		115.00
			T-1 CERT			
72825	07-08-21	VALLEY LOCK & SAFE	NEW ID/LOCK CARDS	175.00		175.00
72826	07-08-21	WATERLINE TECHNOLOGIES INC.	8 DRUMS REFILLED	823.21		823.21
72827	07-08-21	XEROX CORPORATION	COPY LEASE EQUIPMENT	343.73		343.73
72828	07-16-21	AMANDA LUCAS	A.LUCAS RETIREMENT BFAS REIMB.	373.18		373.18
72829	07-16-21	ANDY GRUNNET	A.GRUNNET BOOT REIMB.	300.00		300.00
72830	07-16-21	APRIL LEE SCOTT	A.SCOTT TUITION REIMB.	1,553.49		1,553.49
72831	07-16-21	ARAMARK UNIFORM SERVICES, INC	UNIFORM SERVICES	358.94		358.94
72832	07-16-21	BRINKS INCORPORATED	JULY MONTHLY SERVICE	169.49		169.49
72833	07-16-21	PARKERS BUILDING SUPPLY	BLOCK FOR SUPPORT	13.47		13.47
72834	07-16-21	CARPI & CLAY. INC	JUNE FEDERAL ADVOCACY	4,000.00		4,000.00
72835	07-16-21	CASAMAR GROUP, LLC	LABOR COMPLIANCE MONITORING	0.00	1,879.97	1,879.97
72836	07-16-21	CASEY DOLAN	JULY DIGITAL AD MGMT	650.00		650.00
72837	07-16-21	CS-AMSCO	4" PLUG	2,377.45		2,377.45
72838	07-16-21	CV STRATEGIES	CCR PRINTING/MAILING POSTAGE	30,229.32		30,229.32
72839	07-16-21	CVAG	MEMBERSHIP DUES	4,587.00		4,587.00
72840	07-16-21	DESERT VALLEY DISP INC	ADMIN BLDG JUNE SERVICE	7,453.36		7,453.36
			CORP YARD JUNE SERVICE			
			SERVICE CHARGE			
			VERBENA SERVICE CHARGE			
72841	07-16-21	DESERT VALLEY BUILDERS ASSOCIATION	DVBA MEMBERSHIP RENEWAL	375.00		375.00
72842	07-16-21	DESERT RECYCLING INC.	CONCRETE REMOVAL	1,650.00		1,650.00
			ROLL OFF CHARGE			
72843	07-16-21	DESERT TIRES AND AUTO REPAIR	REPLACEMENT TIRE	304.38		304.38
72844	07-16-21	DESERT COVE ASSISTED LIVING	DESERT COVE TOILET REBATE PROGRAM	2,389.25		2,389.25
72845	07-16-21	EISENHOWER MEDICAL ASSOCIATES INC,	DOT PHYSICAL - CHAPMAN/RODRIGUEZ	310.00		310.00
72846	07-16-21	ENVIROGEN TECHNOLOGIES	URANIUM TREATMENT	3,938.37		3,938.37
72847	07-16-21	FERGUSON WATERWORKS #1083	METER BOX AND LID	3,505.11		3,505.11
72848	07-16-21	FRONTIER	ADMIN TELEPHONE SERVICE	614.38		614.38
72849	07-16-21	GRAINGER	MEASURING WHEEL 3 FT 2UJY6	138.34		138.34
			SYNTHETIC GREASESHC 4ZF49 QTY10			
72850	07-16-21	HDS WHITE CAP CONST SUPPLY	CUTOFF WHEELS-SHOVELS-NITRILE GLOVES	1,998.70		1,998.70
			HYDRATION FREEZE POPS			
			SQWINCHER HYDRATION FREEZE POPS			
			STRAW WATTLE			
72851	07-16-21	HOLT ARCHITECTURE	ADMIN BUILDING EXHIBIT	0.00	6,780.00	6,780.00
72852	07-16-21	HOME DEPOT CRC PROGRAM	SUPPLIES & TOOLS	4,484.04		4,484.04
72853	07-16-21	INFOSEND INC	TAX ROLL BILL INSERT	1,173.99		1,173.99
72854	07-16-21	JUAN HERNANDEZ	J.HERNANDEZ BOOT REIMB.	149.70		149.70
72855	07-16-21	KILLER BEE PEST CONTROL	PEST CONTROL	205.00		205.00
72856	07-16-21	LITIGATION SERVICES	DEPOSITION FOR MM EMP.	2,860.00		2,860.00

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72857	07-16-21	LUBRICATION ENGINEERS, INC	10 GAL MONOLEC	350.65		350.65
72858	07-16-21	MANPOWER US INC.	STAFFING SERVICES	1,152.75		1,152.75
72859	07-16-21	MATHESON TRI-GAS, INC	HD WORK GLOVES	206.88		206.88
72860	07-16-21	MICHAEL JEAN KLUTTS	WORK ON WELL 33	3,419.87		3,419.87
72861	07-16-21	MILLARD PUBLISHING SERVICES	WEBSITE PLANT DATABASE	1,595.00		1,595.00
72862	07-16-21	O'REILLY AUTOMOTIVE,INC.	55 GAL OIL	1,126.16		1,126.16
			CREDIT FOR REQ# 111108			
			HORTON PLANT GREASE & OIL			
72863	07-16-21	PALM SPRINGS PEST CONTROL, INC.	PEST CONTROL	155.00		155.00
72864	07-16-21	POLLARD WATER.COM EAST	TUBE ROUNDER VICE GRIPS	223.58		223.58
72865	07-16-21	RTK REFRIGERATION	ICE MACHINE REPAIR @ YARD	551.24		551.24
72866	07-16-21	RITA M. HUBER	PETTY CASH RECONCILIATION QTR 2.	57.88		57.88
72867	07-16-21	SIERRA BOYLE	S. BOYLE MILEAGE REIMB.	77.84		77.84
72868	07-16-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET SERVICES	401.64		401.64
72869	07-16-21	STAPLES	OFFICE SUPPLIES	1,577.03		1,577.03
72870	07-16-21	STURDIVAN EMERGENCY MANAGEMENT	AWIA RESILIENCE	0.00	31,500.00	31,500.00
72871	07-16-21	TCI BUSINESS CAPITAL	TEMP STAFFING - WW	3,910.00		3,910.00
72872	07-16-21	THE UPS STORE #5062	CRANE CONTROLLER SHIPPING	121.03		121.03
			GAUGE SHIPPING			
			O.HOFFERT/B.MACY BUSINESS CARDS			
72873	07-16-21	THE GREATER COACHELLA VALLEY	GCVCC BOARD RETREAT	373.00		373.00
72874	07-16-21	THE VAN DYKE CORPORATION	PROGRESS PAYMENT 3	0.00	310,109.92	310,109.92
72875	07-16-21	UMETECH, INC.	IT SUPPORT	19,678.50	191.25	19,869.75
72876	07-16-21	UNDERGROUND SERVICE ALERT	UNDERGROUND SERVICE ALERT	455.33		455.33
72877	07-16-21	USA BLUEBOOK	MANHOLE COVER	729.89		729.89
			REPLACEMENT 2 DRUM PALLET			
			SWING SAMPLER BOTTLE			
72878	07-16-21	VALLEY LOCK & SAFE	BATTERY REPLACEMENT	248.70		248.70
72879	07-16-21	WESTERN PUMP INC	FUEL PUMP REPAIR	13,626.06		13,626.06
72880	07-22-21	AECOM TECHNICAL SERVICES INC.	WELL 42 REDESIGN SERVICES	0.00	1,362.50	1,362.50
72881	07-22-21	ANDRZEJ LAZARUS	ACCOUNT REFUND 65565 ACOMA AVE #127	528.73		528.73
72882	07-22-21	COLANTUONO, HIGHSMITH & WHATLEY, PC	LEGAL SERVICES	5,113.50		5,113.50
72883	07-22-21	COUNTY OF RIVERSIDE	ADJUST DISTRICT FACILITIES-WATER/R&R/ASPHALT	0.00	127,669.50	127,669.50
72884	07-22-21	COUNTY OF RIVERSIDE	ACCOUNT REFUND TAMARACK RD	416.66		416.66
72885	07-22-21	DLT SOLUTIONS LLC	AUTOCAD SOFTWARE ANNUAL SUB.	4,112.76		4,112.76
72886	07-22-21	DOTY BROS. EQUIPMENT CO.	ACCOUNT REFUND GARNET AVE EAST OF N. INDIAN CANYON	269.51		269.51
72887	07-22-21	DOWNING CONSTRUCTION	ACCOUNT REFUND THUMB DR & INDIAN	714.00		714.00
72888	07-22-21	DOWNING CONSTRUCTION, INC.	PROGRESS PYMT #4	0.00	69,889.81	69,889.81
72889	07-22-21	FERGUSON WATERWORKS #1083	NEPTUNE METER	13,728.85		13,728.85
72890	07-22-21	FRANCISCO GUIZAR	ACCOUNT REFUND 66337 3RD ST	23.81		23.81
72891	07-22-21	INFOSEND INC	MONTHLY E-BILL SUPPORT & FEES	516.40		516.40
72892	07-22-21	INLAND WATER WORKS SUPPLY CO.	MTR BUSHING	1,294.62		1,294.62
72893	07-22-21	JACOB EDDINGS	ACCOUNT REFUND 13875 LUIS DR "B"	30.15		30.15
72894	07-22-21	JAY YOON	ACCOUNT REFUND 12536 PALM DR	120.36		120.36
72895	07-22-21	JOHN & VIRGINIA LEJEUNE	ACCOUNT REFUND 69431 MIDPARK DR	6.36		6.36
72896	07-22-21	KAMAN INDUSTRIAL TECHNOLOGIES	REPLACEMENT BEARING	3,041.38		3,041.38
72897	07-22-21	KIMBERLY STRUM	ACCOUNT REFUND 9802 SAN SIMEON DR	124.06		124.06

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72898	07-22-21	LINDSEY STAFFORD-WAGSTAFF	ACCOUNT REFUND 13721 MONUMENT ST	50.25		50.25
72899	07-22-21	LINKO TECHNOLOGY INC.	ANNUAL SUB. 21/22	8,185.00		8,185.00
72900	07-22-21	LOTIS MACK	ACCOUNT REFUND 66975 DESERT VIEW AVE	119.84		119.84
72901	07-22-21	MANPOWER US INC.	ACCOUNTING TEMP STAFFING SERVICES	6,008.08		6,008.08
72902	07-22-21	MARISELA GALVEZ	ACCOUNT REFUND 16555 AVE RAMBLA	7.27		7.27
72903	07-22-21	PLANIT REPROGRAPHICS	MODEL HOMES AND LANDSCAPE PLANS SCANS OF APPROVED PLANS SCANS OF APPROVED PLANS/BOND COPIES	85.65		85.65
72904	07-22-21	QUADIENT FINANCE USA, INC.	POSTAGE REPLENISHMENT	92.83		92.83
72905	07-22-21	SHAYNNA SILVER	ACCOUNT REFUND 9365 CALLE BARRANCA	62.74		62.74
72906	07-22-21	SOUTHERN CALIF EDISON	ELECTRIC BILL - WELL 26A/WELL25A/WOODRIDGE	1,856.27		1,856.27
72907	07-22-21	T4 SPATIAL, LLC	CCTV - JULY 2021	1,188.00		1,188.00
72908	07-22-21	THE VAN DYKE CORPORATION	PROGRESS PYMT #4	0.00	181,588.23	181,588.23
72909	07-22-21	TKE ENGINEERING, INC	GROUNDWATER SUSTAINABILITY/REGIONAL UWMP	4,132.50	15,454.00	19,586.50
72910	07-22-21	TONY OMRI	ACCOUNT REFUND 16880 LAKESIDE CT	31.39		31.39
72911	07-22-21	VERIZON WIRELESS	CELL PHONE BILL	3,832.35		3,832.35
72912	07-22-21	WALLACE & ASSOCIATES CONSULTING, INC.	CM & INSPECTION SERVICES JUNE 2021	0.00	40,645.00	40,645.00
72913	07-22-21	WATERLINE TECHNOLOGIES INC.	10 DRUMS REFILLED 8 DRUMS REFILLED	1,852.22		1,852.22
72914	07-29-21	AECOM TECHNICAL SERVICES INC.	DESIGN SERVICES	0.00	19,971.00	19,971.00
72915	07-29-21	ANSAFONE CONTACT CENTERS	ANSAFONE ANSWERING SERVICE	384.92		384.92
72916	07-29-21	ARAMARK UNIFORM SERVICES, INC	UNIFORM SERVICES	726.34		726.34
72917	07-29-21	AWWA	AWWA MEMBERSHIP2021-2022	2,373.00		2,373.00
72918	07-29-21	B-81 PAVING INC	PAVING IN VARIOUS LOCATIONS	25,824.50		25,824.50
72919	07-29-21	BABCOCK LABORATORIES, INC.	PFAS TESTING 2ND QTR-2021 TOTAL N SAMPLING	1,851.00		1,851.00
72920	07-29-21	BECK OIL, INC.	DIESEL FUEL UNLEADED GASOLINE	9,289.12		9,289.12
72921	07-29-21	COVE ELECTRIC, INC.	INSTALL ELECTRIC CIRCUITS TO CONTAINER	4,895.00		4,895.00
72922	07-29-21	CV STRATEGIES	CRISIS COMM. SUPPORT SOCIAL MEDIA-JUNE 2021 UNDERSTANDING YOUR BILL VIDEO	9,975.00		9,975.00
72923	07-29-21	CWEA	CWEA CERTIFICATE RENEWAL-JOEY M.	96.00		96.00
72924	07-29-21	DESERT WATER AGENCY	CV WATER COUNTS YRLY SHARE COST	14,880.00		14,880.00
72925	07-29-21	DESERT VALLEY BUILDERS ASSOCIATION	DVBA NTWRKNG NIGHT/ARDEN/MARTIN	20.00		20.00
72926	07-29-21	ENTERPRISE FM TRUST	JULY 2021 MONTHLY LEASE CHARGES	9,968.43		9,968.43
72927	07-29-21	EXECUTIVE FACILITIES SERVICES, INC.	JULY CLEANING SERVICE JULY DISINFECTING SERVICES	3,464.58		3,464.58
72928	07-29-21	FARMER BROS CO	ADMIN COFFEE	209.19		209.19
72929	07-29-21	HAAKER EQUIPMENT COMPANY	RENEWABLE PARTS FOR COLLECTING JETTING SWAGE MACHINE FOR COLLECTIONS JETTING	3,193.72		3,193.72
72930	07-29-21	INFOSEND INC	MONTHLY BILLING SRVS INV194878	3,463.82		3,463.82
72931	07-29-21	INLAND WATER WORKS SUPPLY CO.	MTR BUSHING	160.01		160.01
72932	07-29-21	LAYNE CHRISTENSEN COMPANY	REPAIRS	14,157.95		14,157.95
72933	07-29-21	MANPOWER US INC.	ACCOUNTING TEMP	2,423.82		2,423.82

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			STAFFING SERVICES			
72934	07-29-21	O'REILLY AUTOMOTIVE, INC.	BATTERY REPLACEMENT	176.74		176.74
72935	07-29-21	ON POWER INDUSTRIES, LLC	TROUBLESHOOT INF. PUMP	1,485.00		1,485.00
72936	07-29-21	PARKHOUSE TIRE, INC	TIRE REPLACEMENT	474.15		474.15
72937	07-29-21	PARKERS BUILDING SUPPLY	ADMIN LIGHT BULB REPLACEMENT	148.63		148.63
			FLAG FOR ADMIN			
			HOSE SPICKETS			
			IRRIGATION PARTS			
			SWAMP COOLER REPAIR			
72938	07-29-21	PLUMBERS DEPOT INC	NOZZLES/POLES/MISC. ITEMS	3,961.16		3,961.16
			Y-STRAINER			
72939	07-29-21	POLYDYNE, INC.	3 TOTES POLYMER SLUDGE	8,849.58		8,849.58
72940	07-29-21	SANDERSON LANDSCAPE SOLUTIONS	LANDSCAPING	6,010.00		6,010.00
72941	07-29-21	SHRED-IT	SHREDDING SERVICE	354.60		354.60
72942	07-29-21	SOUTH COAST AIR QUALITY	FLAT FEE EMISSIONS	582.74		582.74
			GENERATOR PERMIT			
72943	07-29-21	SOUTHERN CALIF EDISON	ELECTRIC BILL	15,690.64		15,690.64
72944	07-29-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	6,265.44		6,265.44
			FLEET SERVICE REPAIR			
72945	07-29-21	SOUTH COAST AIR QUALITY	AQMD PERMIT PROCESSING	0.00	615.65	615.65
72946	07-29-21	STAPLES	OFFICE SUPPLIES	611.09		611.09
72947	07-29-21	SUNPOWER CORPORATION, SYSTEMS	QUARTERLY SERVICE FEE	5,002.50		5,002.50
72948	07-29-21	SWRCB ACCOUNTING OFFICE	J.HERNANDEZ T2 RENEWAL	60.00		60.00
72949	07-29-21	T4 SPATIAL, LLC	AUG. 2021 MONTHLY CCTV STORAGE	1,250.00		1,250.00
72950	07-29-21	TCI BUSINESS CAPITAL	WW STAFFING SERVICE	1,360.00		1,360.00
72951	07-29-21	TKE ENGINEERING, INC	MAY 2021 C&M SERVICES	0.00	12,252.35	12,252.35
			MAY 2021 DESIGN SERVICES			
72952	07-29-21	TULE RANCH/MAGAN FARMS	JUNE 2021 SLUDGE HAULING	18,934.93		18,934.93
72953	07-29-21	USA BLUEBOOK	GRUNDFOS QUILL	1,678.79		1,678.79
			INJECTION QUILL			
72954	07-29-21	WATER ENVIRONMENT FEDERATION	WEF MEMBERSHIP RENEWAL	382.00		382.00
72955	07-29-21	WATERLINE TECHNOLOGIES INC.	9 DRUMS REFILLED	1,053.63		1,053.63
72956	07-29-21	WEST COAST SAFETY SUPPLY	NEW GAS DETECTOR	3,725.15		3,725.15
9995060	07-02-21	WELLS FARGO BANK	AUTO DEPOSIT	111,807.83		111,807.83
9995061	07-02-21	WELLS FARGO BANK	FED TAX PPE 06.25	45,218.65		45,218.65
9995062	07-02-21	STATE OF CA EDD	STATE TAX PPE 06.25	8,811.24		8,811.24
9995063	07-02-21	BERKADIA COMMERCIAL MORTGAGE	AD #4 LOAN	4,455.00		4,455.00
9995064	07-02-21	BERKADIA COMMERCIAL MORTGAGE	AD #7 LOAN	15,102.50		15,102.50
9995075	07-07-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 06/25	9,933.62		9,933.62
9995076	07-07-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 06/25	28,930.09		28,930.09
9995192	07-16-21	WELLS FARGO BANK	AUTO DEP. PPE 07/09	113,463.76		113,463.76
9995195	07-15-21	WELLS FARGO BANK	AUTO DEP. SPECIAL 07/15	15,859.18		15,859.18
9995200	07-19-21	WELLS FARGO BANK	FED TAX DEPOSIT	59,935.89		59,935.89
9995201	07-19-21	STATE OF CA EDD	STATE TAX PPE 07/09	12,492.56		12,492.56
9995202	07-19-21	SLOVAK BARON EMPEY MURPHY & PINKNEY LLP	LEGAL SERVICES	47,192.50		47,192.50
9995244	07-21-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 07/09	9,135.22		9,135.22
9995245	07-22-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 07/09	29,312.85		29,312.85

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73008	08-13-21	DESERT WATER AGENCY	DWA 4TH QTR RAC FEES	352,208.38		352,208.38
73107	08-26-21	SOUTHERN CALIFORNIA EDISON COMPANY	CORP YARD, ANNEX, ENG., MOD., ADMIN	276,256.64		276,256.64
			ELECTRIC BILL - CORP YARD/ADMIN			
			ELECTRIC BILL - DC DILLON LIFT ST./HORTPN PLANT			
			ELECTRIC BILL - WELL 25A/26/WOODRIDGE			
			ELECTRIC BILL - WELL 27			
			ELECTRIC BILL - WELL 28			
			ELECTRIC BILL - WELL 33/27/DESERT VIEW			
			ELECTRIC BILL - WELL 72/29/24			
			WELL 33			
			WELL 33, WELL 30			
			WELL 34, WELL 33			
9995484	08-13-21	WELLS FARGO BANK	AUTO DEP PPE 08/06	110,381.14		110,381.14
9995687	08-27-21	WELLS FARGO BANK	AUTO DEP PPE 08/20	109,942.46		109,942.46
72998	08-13-21	ACWA-JPIA HEALTH BENEFITS AUTH.	SEPT. 2021 - MEDICAL/VISION/EAP	99,465.15		99,465.15
73091	08-26-21	ACWA-JPIA HEALTH BENEFITS AUTH.	JULY 2021 - MEDICAL/VISION/EAP	97,547.03		97,547.03
9995488	08-12-21	SLOVAK BARON EMPEY MURPHY & PINKNEY LLP	LEGAL FEES - JULY 2021	56,701.50		56,701.50
72965	08-05-21	CITY OF DESERT HOT SPRINGS	20/21 UUTAX SS3 RECEIPTS	46,735.23		46,735.23
			DEC. 2020 ENCROACHMENT PERMIT			
			UUTAX - MAY 2021			
73000	08-13-21	B-81 PAVING INC	PAVING IN VARIOUS LOCATIONS	46,697.50		46,697.50
9995486	08-13-21	WELLS FARGO BANK	FED TAX DEP PPE 08/06	44,543.91		44,543.91
9995688	08-27-21	WELLS FARGO BANK	FED TAX DEP PPE 08/20	40,876.19		40,876.19
73099	08-26-21	FERGUSON WATERWORKS #1083	3/4" T10 NEPTUNE METER	40,364.87		40,364.87
73054	08-19-21	CITY OF DESERT HOT SPRINGS	UU TAX - JUNE 2021	38,423.92		38,423.92
73022	08-13-21	LAYNE CHRISTENSEN COMPANY	WELL 34	31,752.48		31,752.48
9995567	08-19-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 08/06	27,721.43		27,721.43
9995361	08-03-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 07/23	27,701.87		27,701.87
73093	08-26-21	COACHELLA VALLEY WATER DIST	1/8 COST SHARE FY21	27,646.02		27,646.02
73101	08-26-21	INNOVYZE INC	SOFTWARE & ANNUAL SUB.	4,714.00	20,140.00	24,854.00
PR082621	08-26-21	EMPLOYEES	PAPER PAYROLL CHECKS	22,625.30		22,625.30
72991	08-05-21	UMETECH, INC.	NETWORK SUPPORT	21,336.00	701.25	22,037.25
73042	08-13-21	TULE RANCH/MAGAN FARMS	JULY 2021 SLUDGE HAULING	21,088.59		21,088.59
73028	08-13-21	NOBEL SYSTEMS INC.	CMMS ANNUAL SUB	20,590.00		20,590.00
			CORELOGIC ANNUAL SUB			
			PUBLIC VIEWER ANNUAL SUB.			
72957	08-05-21	ACWA/JOINT POWERS INSUR AUTH	W/C 4TH QTR.	18,719.35		18,719.35
73041	08-13-21	TKE ENGINEERING, INC	CM & INSPECTION	0.00	13,115.00	13,115.00
			DESIGN SERVICES			
			PROJECT MGMT SERVICES			
72995	08-05-21	WILLDAN FINANCIAL SERVICES	21/22 ASSESMENT MGMT FEES	12,010.00		12,010.00
			21/22 SEWER & WATER DELINQUENT ACCTS.			
			21/22 SEWER ON PROP TAXES			
73097	08-26-21	CV STRATEGIES	JULY SOCIAL MEDIA	11,925.00		11,925.00

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			JULY STRATEGIC COMM.			
			JULY VALUE OF WATER VIDEO			
73100	08-26-21	INLAND WATER WORKS SUPPLY CO.	12"STD X 1"IPT DI SADDLE D/S	11,869.44		11,869.44
			BRZ SADDLE			
			MUELLER NUT & GASKET			
			REPLACEMENT AIRVAC			
			REPLACEMENT GATE VALVE PARTS			
			STRAP SADDLE			
73083	08-19-21	SMARTCOVER SYSTEMS	SMART COVER MONITORING SERVICES	11,462.32		11,462.32
73059	08-19-21	ENTERPRISE FM TRUST	AUG. 2021 LEASE CHARGES	9,968.43		9,968.43
73038	08-13-21	STURDIVAN EMERGENCY MANAGEMENT	HAZARD MITIGATION PLAN	0.00	9,500.00	9,500.00
9995485	08-13-21	STATE OF CA EDD	STATE TAX DEP PPE 08/06	8,831.95		8,831.95
9995487	08-13-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 08/06	8,826.01		8,826.01
73050	08-19-21	BECK OIL, INC.	DIESEL FUEL	8,767.10		8,767.10
			UNLEADED GASOLINE			
72967	08-05-21	COACHELLA VALLEY WATER DIST	1/6 COST SHARE FY 21	8,650.04		8,650.04
9995690	08-20-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 08/20	8,479.02		8,479.02
72979	08-05-21	MUNICODE	CODIFICATION	8,450.00		8,450.00
9995689	08-27-21	STATE OF CA EDD	STATE TAX PPE 08/20	8,342.38		8,342.38
9995432	08-05-21	WELLS FARGO BANK	J.HERNANDEZ SP. PAYROLL	8,302.74		8,302.74
72973	08-05-21	GOUGH SYSTEMS	UNIDATA MAINTENANCE	2,350.00	5,650.00	8,000.00
73106	08-26-21	RUHNAU CLARKE ARCHITECTS	MSWD CRITICAL SERVICES CENTER	0.00	7,254.00	7,254.00
73075	08-19-21	ON POWER INDUSTRIES, LLC	INSTALL GENERATOR CONNECTIONS	6,419.13		6,419.13
			WELL 24/28 CONTACTORS			
72961	08-05-21	CARL OTTESON'S CERTIFIED BACKFLOW	JULY 2021 BACKFLOW TEST	6,180.00		6,180.00
73084	08-19-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	6,071.99		6,071.99
73068	08-19-21	KAMAN INDUSTRIAL TECHNOLOGIES	REPLACEMENT MOTOR AUGER	5,946.94		5,946.94
			REPLACEMENT MOTORS			
73024	08-13-21	MANAGER PLUS SOLUTIONS, LLC.	MANAGER PLUS SERVICE RENEWAL	5,795.00		5,795.00
73018	08-13-21	INLAND WATER WORKS SUPPLY CO.	BALL VALVES	5,548.48		5,548.48
			EXTENDABLE WRENCH			
9995415	08-02-21	USDA RURAL DEVELOPMENT	USDA LOAN PYMT - INTEREST ONLY	5,532.75		5,532.75
72976	08-05-21	KAMAN INDUSTRIAL TECHNOLOGIES	REPLACEMENT BEARINGS	5,513.29		5,513.29
			RESTOCK BELTS FOR HORTON PLANT			
			V-BELT RESTOCK			
73005	08-13-21	CORINNE WEISS STRATEGIC COMMUNICATIONS	JUNE WEBSITE COM. SERVICES	5,287.50		5,287.50
			WEBSITE COM. SERVICES			
73102	08-26-21	LANDMARK CONSULTANTS, INC.	COMPRESSION TEST PP#1	186.00	4,741.20	4,927.20
			SOILS & COMPACTION			
73031	08-13-21	RAY LOPEZ ASSOCIATES	LANDSCAPE INSPECTIONS	4,870.43		4,870.43
73057	08-19-21	CYPRESS DENTAL ADMINISTRATORS	SEPT. 2021 DENTAL	4,798.95		4,798.95
73095	08-26-21	CORE & MAIN LP	FLANGE GASKETS	4,612.38		4,612.38
			VALVE REPLACEMENT PARTS			
72969	08-05-21	CYPRESS DENTAL ADMINISTRATORS	AUG.2021 - DENTAL	4,521.37		4,521.37

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73088	08-19-21	VERIZON WIRELESS	JULY 2021 VERIZON BILL	4,002.87		4,002.87
72962	08-05-21	CARPI & CLAY, INC	JULY FEDERAL ADVOCACY	4,000.00		4,000.00
73060	08-19-21	ENVIROGEN TECHNOLOGIES	WELL 26A URANIUM TREATMENT	3,938.37		3,938.37
73017	08-13-21	INFOSEND INC	JULY SUPPORT FEE	3,884.64		3,884.64
			MONTHLY BILLING			
73086	08-19-21	STRATEGY 7 CORPORATION	2022 UNIDATA MAINTENANCE	3,600.00		3,600.00
72975	08-05-21	INFOSEND INC	MONTHLY BILLING	3,492.74		3,492.74
73061	08-19-21	EXECUTIVE FACILITIES SERVICES, INC.	ADMIN BLDG DISINFECTION	3,464.58		3,464.58
			AUGUST CLEANING SERVICES			
72989	08-05-21	THE LINCOLN NATL. LIFE INS. CO.	LIFE INS./LTD - AUG. 2021	3,127.51		3,127.51
73015	08-13-21	HEITEC	GENERAL INSPECTIONS	3,087.50		3,087.50
73087	08-19-21	THE LINCOLN NATL. LIFE INS. CO.	SEPT. 2021 LIFE INS.	3,040.70		3,040.70
73082	08-19-21	SIERRA BOYLE	S.BOYLE TUITION REIMB.	2,986.88		2,986.88
73070	08-19-21	MANPOWER US INC.	ACCOUNTING TEMP	2,895.60		2,895.60
			STAFFING SERVICE			
72970	08-05-21	DANGELO COMPANY	DESERT WILLOWS WATERLINE	0.00	2,353.67	2,353.67
72997	08-13-21	AB FENCE COMPANY, INC.	FENCE REPAIR	2,300.00		2,300.00
73020	08-13-21	JESSUP AUTO PLAZA	UNIT 390 REPAIRS	2,091.87		2,091.87
73016	08-13-21	HOME DEPOT CRC PROGRAM	HOME DEPOT CC	2,023.25		2,023.25
72966	08-05-21	CLINICAL LABORATORY OF SAN BERNARDINO	JUNE 2021 BOD TESTING	1,918.00		1,918.00
			LAB SERVICES			
73007	08-13-21	DESERT VALLEY DISPOSAL, INC.	CORP YARD SERVICE CHARGE	1,895.08		1,895.08
			JULY SERVICE CHARGES			
			ROLL OFF FOR HORTON PLANT			
73090	08-19-21	WATERLINE TECHNOLOGIES INC.	7 DRUMS REFILLED	1,756.05		1,756.05
			8 DRUMS REFILLED			
73111	08-26-21	USA BLUEBOOK	HORTON PLANT WATER HOSES	1,658.76		1,658.76
			WRENCH SET/RATCHET/PUMP			
73025	08-13-21	MANPOWER US INC.	ACCOUNTING TEMP	1,609.50		1,609.50
			STAFFING SERVICES			
73076	08-19-21	PARKHOUSE TIRE, INC	FORKLIFT TIRES	1,525.66		1,525.66
72983	08-05-21	RAY LOPEZ ASSOCIATES	INSPECTIONS	1,490.00		1,490.00
73114	08-26-21	WHITE CAP CONSTRUCTION SUPPLY	CHOP SAW REPLACEMENT	1,429.53		1,429.53
			WATER COOLER RESTOCK			
73058	08-19-21	DESERT TIRE AND AUTO REPAIR	UNIT 404 TIRES	1,382.85		1,382.85
			UNIT 405 TIRES			
73108	08-26-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	1,316.12		1,316.12
73113	08-26-21	WATERLINE TECHNOLOGIES INC.	11 DRUMS REFILLED #5547201	1,287.77		1,287.77
72963	08-05-21	CASAMAR GROUP, LLC	LABOR COMPLIANCE AND MONITORING	0.00	1,285.16	1,285.16
73110	08-26-21	T4 SPATIAL, LLC	CCTV STORAGE SUBSCRIPTION - SEP 2021	1,250.00		1,250.00
72993	08-05-21	WATERLINE TECHNOLOGIES INC.	10 DRUMS REFILLED	1,170.70		1,170.70
73092	08-26-21	CLINICAL LABORATORY OF SAN BERNARDINO	BOD TESTING H+DC - JULY 2021	1,139.00		1,139.00
			LAB SERVICES			
72960	08-05-21	BABCOCK LABORATORIES, INC.	2ND QTR GROUNDWATER TESTING	1,130.85		1,130.85

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72974	08-05-21	HI-DESERT AIR INC.	AC REPAIR	1,100.00		1,100.00
73073	08-19-21	MICHAEL JEAN KLUTTS	SCADA SYSTEM REPAIRS	1,057.19		1,057.19
73052	08-19-21	CAR DR. MOBILE	CNG TANK INSPECTION	1,000.00		1,000.00
72985	08-05-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIR	982.13		982.13
72994	08-05-21	WESTERN PUMP INC	FUEL PUMP REPAIRS	905.00		905.00
PR081321	08-13-21	EMPLOYEES	PAPER PAYROLL CHECKS	-815.48		-815.48
72958	08-05-21	ARAMARK UNIFORM SERVICES, LLC	UNIFORM SERVICES	762.38		762.38
73006	08-13-21	D.J. MILLER, INC.	ACCOUNT REFUND GARNET AVE	750.00		750.00
73001	08-13-21	BABCOCK LABORATORIES, INC.	3RD QTR. SLUDGE TESTING	714.00		714.00
9995686	08-25-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	GASB 68 FEE 2021/2022	700.00		700.00
73047	08-19-21	ARAMARK UNIFORM SERVICES, LLC	UNIFORM SERVICES	682.09		682.09
73081	08-19-21	ROCKFORCE CONSTRUCTION, LLC	ACCOUNT REFUND 55860 HAUGEN-LEHMANN WAY	651.00		651.00
72964	08-05-21	CASEY DOLAN	DIGITAL AD MGMT	650.00		650.00
72972	08-05-21	FRONTIER	ADMIN	598.33		598.33
72968	08-05-21	CWEA	CWEA MEMBERSHIP RENEWAL	571.00		571.00
			L.BOYER CWEA MEMBERSHIP & CERT.			
73063	08-19-21	FRANCHISE TAX BOARD	M.VERMEER GARNISHMENT PPE 08.06	549.91		549.91
72988	08-05-21	THE UPS STORE #5062	MSWD ENVELOPES	478.75		478.75
72978	08-05-21	MANPOWER US INC.	ACCOUNTING TEMP.	464.00		464.00
73009	08-13-21	DESERT TIRE AND AUTO REPAIR	UNIT 341 TIRES	415.06		415.06
73109	08-26-21	STAPLES	PENS, ENVELOPES, CHR, CABLES, DATE STAMP	412.60		412.60
73079	08-19-21	PROFORMA	MISC. ADJUSTMENT FORMS	403.81		403.81
72971	08-05-21	DESERT STAR WEEKLY	ORDINANCE PUBLISHING	369.00		369.00
9995483	08-09-21	STATE OF CA EDD	2ND QTR STATE 941	364.97		364.97
73043	08-13-21	UNDERGROUND SERVICE ALERT	AUG. 2021 UNDERGROUND SERVICE ALERT	359.63		359.63
			UNDERGROUND SERVICE ALERT			
72986	08-05-21	STAPLES	OFFICE SUPPLIES	356.89		356.89
73096	08-26-21	COVE ELECTRIC, INC.	TROUBLESHOOTING & REPAIR BRUSH	356.50		356.50
73074	08-19-21	O'REILLY AUTOMOTIVE, INC.	BATTERY CORE RETURN	352.86		352.86
			BATTERY FOR PLANT GENERATOR			
			UNIT 397 BATTERY REPLACEMENT			
72996	08-05-21	XEROX CORPORATION	COPY LEASE	343.73		343.73
73019	08-13-21	JASON WEEKLEY	J.WEEKLEY BOOT REIMB.	300.00		300.00
73103	08-26-21	MATHESON TRI-GAS, INC	N95 MASKS	298.34		298.34
			STEEL TOE RUBBER BOOT RESTOCK			
73046	08-19-21	ANSAFONE CONTACT CENTERS	ANSWERING SERVICE	283.71		283.71
73049	08-19-21	BASSAM ALZAMMAR	B.ALZAMMAR MILEAGE REIMB.	260.96		260.96
73013	08-13-21	GOT SAFETY, LLC	Q3 SAFETY TRAININGS	239.97		239.97
73094	08-26-21	COLTON GERDES	C.GERDES BOOT REIMB.	221.53		221.53
73105	08-26-21	O'REILLY AUTOMOTIVE, INC.	GRASE GUN FOR PLANT MAINT	210.25		210.25
			UNIT 412 BATTERY REPLACEMENT			
72987	08-05-21	TANA PHEMESTER	TOILET REBATE - PHEMESTER	200.00		200.00
73037	08-13-21	SONJA REED	ACCOUNT REFUND 66338 AVE CADENA	180.90		180.90
73048	08-19-21	BABCOCK LABORATORIES, INC.	TOTAL N TESTING	178.50		178.50

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73089	08-19-21	VITO ORLANDO	ACCOUNT REFUND 64028 ALPINE ST	171.73		171.73
73002	08-13-21	BRINKS INCORPORATED	WEEKLY PICKUP	169.95		169.95
73098	08-26-21	DESERT PROMOTIONS	PLAQUE FOR RICK LYNEIS RETIREMENT	157.69		157.69
72981	08-05-21	PALM SPRINGS PEST CONTROL, INC.	PEST CONTROL	155.00		155.00
72992	08-05-21	USA BLUEBOOK	REPLACEMENT FLAG	137.38		137.38
73072	08-19-21	MARSHA ARGO	ACCOUNT REFUND 16395 AVE ATEZADA	132.78		132.78
73011	08-13-21	EISENHOWER MEDICAL ASSOCIATES INC,	J.MARTINEZ PRE-EMP. SCREENING	130.00		130.00
73003	08-13-21	CANDICE COBB	ACCOUNT REFUND 11497 POMELO DR	124.97		124.97
73034	08-13-21	RUDOLPH KOCH	ACCOUNT REFUND 9282 EL MIRADOR BLVD	119.94		119.94
72959	08-05-21	ASTRA INDUSTRIAL SERVICES INC	BACKFLOW TEST CALIBRATION FEE	119.00		119.00
73040	08-13-21	TIME WARNER CABLE	CABLE BILL	118.25		118.25
73027	08-13-21	MIESHA JOHNSON	ACCOUNT REFUND 65886 AVE CADENA	117.85		117.85
72990	08-05-21	TIME WARNER CABLE	CABLE BILL	116.39		116.39
72999	08-13-21	ANA RODRIGUEZ	ACCOUNT REFUND 12055 HIGHLAND AVE	115.69		115.69
73045	08-19-21	ANIBAL JAIME MENDEZ-OLID	ACCOUNT REFUND 64550 PIERSON BLVD #48	111.35		111.35
73104	08-26-21	MCMASTER-CARR	FUSES	103.75		103.75
			HORTON PLANT FUSE			
73039	08-13-21	THE UPS STORE #5062	SHIPPING FEES	99.29		99.29
73056	08-19-21	CWEA	A.GRUNNET CWEA CERT. RENEWAL	91.00		91.00
73062	08-19-21	FELICIA OSBORNE	ACCOUNT REFUND 15253 BUBBLING WELLS RD	82.00		82.00
73067	08-19-21	JOSHUA NELSON	ACCOUNT REFUND 9495 VALENCIA DR	82.00		82.00
73029	08-13-21	PETER TRUSTY	ACCOUNT REFUND 15149 VIA QUEDO	78.83		78.83
73014	08-13-21	HECTOR ZAMBADA	ACCOUNT REFUND 66740 TWO BUNCH PALMS TRL	78.20		78.20
73085	08-19-21	SWRCB ACCOUNTING OFFICE	L.SOTO D1 WATER DISTRIBUTION CERT.	70.00		70.00
73044	08-19-21	ADAMS FINANCIAL MGMT	ACCOUNT REFUND 16260 VIA QUEDO	69.64		69.64
72977	08-05-21	LISA PELTON	L.PELTON NOTARY OATH	69.00		69.00
73051	08-19-21	BRIAN RAHIMI	ACCOUNT REFUND 67300 ROCHELLE RD	66.85		66.85
73033	08-13-21	ROSA I. AVALOS	ACCOUNT REFUND 67564 SAN TOMAS ST	64.98		64.98
73010	08-13-21	DESERT DUNES PROP. MGMT	ACCOUNT REFUND 67330 SAN FIDEL WAY	64.54		64.54
73030	08-13-21	PLANIT REPROGRAPHICS	SCAN OF APPROVED MYLARS	28.83	34.28	63.11
			SCANS OF APPROVED SEWER MYLARS			
73021	08-13-21	LAALA LANDRY	ACCOUNT REFUND 13901 LA MESA DR	62.43		62.43
73069	08-19-21	KENNETH PHILLIPS	ACCOUNT REFUND 10825 POMELO DR	60.79		60.79
73004	08-13-21	CMD HOMES CORP	ACCOUNT REFUND 15755 VIA MONTANA	57.95		57.95
73112	08-26-21	USA-FACT INC	K.KETTENECKER BACKGROUND CHECK	49.88		49.88
			T.NEUMANN BACKGROUND CHECK			
73077	08-19-21	PARKERS BUILDING SUPPLY	KEYS	45.09		45.09
			THRUST BLOCK CONCRETE MIX			
			WELL 29 MATERIALS			
73071	08-19-21	MARGARET E FARIAS	ACCOUNT REFUND 66357 2ND ST	41.22		41.22
72980	08-05-21	O'REILLY AUTOMOTIVE,INC.	MISC. ITEMS FOR PLANT USE	40.96		40.96
			UNIT 404 HITCH			
			WINDSHIELD WASHER FLUID			
73023	08-13-21	LISA PELTON	NOTARY EXAM	40.00		40.00

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73036	08-13-21	SIERRA BOYLE	NOTARY EXAM	40.00		40.00
73035	08-13-21	SEAN ALLEN	ACCOUNT REFUND 66231 DESERT VIEW AVE	37.94		37.94
72984	08-05-21	RUSS MARTIN	R.MARTIN JULY MILEAGE REIMB.	36.96		36.96
73066	08-19-21	JOSE L TORRES	ACCOUNT REFUND 66609 JOSEPH WAY	34.23		34.23
73065	08-19-21	JASMIN JACKSON	ACCOUNT REFUND 13780 DEL RAY LN	33.47		33.47
72982	08-05-21	PARKERS BUILDING SUPPLY	GRINDER CUT OFF WHEELS	33.09		33.09
73080	08-19-21	REYNA REED	ACCOUNT REFUND 64931 DESERT AIR CT	32.31		32.31
73026	08-13-21	MARIA LOPEZ	ACCOUNT REFUND 65347 OSPREY LN	30.30		30.30
73012	08-13-21	GABRIELA PEREZ	ACCOUNT REFUND 64126 SILVER STAR AVE	30.01		30.01
73055	08-19-21	CLEAN ENERGY	CNG FUEL	20.19		20.19
73078	08-19-21	PETER TSACHPINIS	ACCOUNT REFUND 62466 N STARCROSS DR	18.80		18.80
73053	08-19-21	CATHERINE METZELAARS-JACOBS	ACCOUNT REFUND 66031 3RD ST	16.62		16.62
73032	08-13-21	RAYMOND RABAGO	ACCOUNT REFUND 66040 7TH ST	14.95		14.95
73064	08-19-21	FREDDY GUTIERREZ	ACCOUNT REFUND 12355 CACTUS DR #B	10.35		10.35
PR080621	08-06-21	EMPLOYEES	PAPER PAYROLL CHECKS	0.00		0.00
PR082721	08-27-21	EMPLOYEES	PAPER PAYROLL CHECKS	0.00		0.00
			CURRENT CHECK TOTAL	1,875,197.9	64,774.5	1,939,972.4
TOTAL				1,875,197.91	64,774.56	1,939,972.47
177 records listed						

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72957	08-05-21	ACWA/JOINT POWERS INSUR AUTH	W/C 4TH QTR.	18,719.35		18,719.35
72958	08-05-21	ARAMARK UNIFORM SERVICES, LLC	UNIFORM SERVICES	762.38		762.38
72959	08-05-21	ASTRA INDUSTRIAL SERVICES INC	BACKFLOW TEST CALIBRATION FEE	119.00		119.00
72960	08-05-21	BABCOCK LABORATORIES, INC.	2ND QTR GROUNDWATER TESTING	1,130.85		1,130.85
72961	08-05-21	CARL OTTESON'S CERTIFIED BACKFLOW	JULY 2021 BACKFLOW TEST	6,180.00		6,180.00
72962	08-05-21	CARPI & CLAY, INC	JULY FEDERAL ADVOCACY	4,000.00		4,000.00
72963	08-05-21	CASAMAR GROUP, LLC	LABOR COMPLIANCE AND MONITORING	0.00	1,285.16	1,285.16
72964	08-05-21	CASEY DOLAN	DIGITAL AD MGMT	650.00		650.00
72965	08-05-21	CITY OF DESERT HOT SPRINGS	20/21 UUTAX SS3 RECEIPTS	46,735.23		46,735.23
			DEC. 2020 ENCROACHMENT PERMIT			
			UUTAX - MAY 2021			
72966	08-05-21	CLINICAL LABORATORY OF SAN BERNARDINO	JUNE 2021 BOD TESTING	1,918.00		1,918.00
			LAB SERVICES			
72967	08-05-21	COACHELLA VALLEY WATER DIST	1/6 COST SHARE FY 21	8,650.04		8,650.04
72968	08-05-21	CWEA	CWEA MEMBERSHIP RENEWAL	571.00		571.00
			L.BOYER CWEA MEMBERSHIP & CERT.			
72969	08-05-21	CYPRESS DENTAL ADMINISTRATORS	AUG.2021 - DENTAL	4,521.37		4,521.37
72970	08-05-21	DANGELO COMPANY	DESERT WILLOWS WATERLINE	0.00	2,353.67	2,353.67
72971	08-05-21	DESERT STAR WEEKLY	ORDINANCE PUBLISHING	369.00		369.00
72972	08-05-21	FRONTIER	ADMIN	598.33		598.33
72973	08-05-21	GOUGH SYSTEMS	UNIDATA MAINTENANCE	2,350.00	5,650.00	8,000.00
72974	08-05-21	HI-DESERT AIR INC.	AC REPAIR	1,100.00		1,100.00
72975	08-05-21	INFOSEND INC	MONTHLY BILLING	3,492.74		3,492.74
72976	08-05-21	KAMAN INDUSTRIAL TECHNOLOGIES	REPLACEMENT BEARINGS	5,513.29		5,513.29
			RESTOCK BELTS FOR HORTON PLANT			
			V-BELT RESTOCK			
72977	08-05-21	LISA PELTON	L.PELTON NOTARY OATH	69.00		69.00
72978	08-05-21	MANPOWER US INC.	ACCOUNTING TEMP.	464.00		464.00
72979	08-05-21	MUNICODE	CODIFICATION	8,450.00		8,450.00
72980	08-05-21	O'REILLY AUTOMOTIVE,INC.	MISC. ITEMS FOR PLANT USE	40.96		40.96
			UNIT 404 HITCH			
			WINDSHIELD WASHER FLUID			
72981	08-05-21	PALM SPRINGS PEST CONTROL, INC.	PEST CONTROL	155.00		155.00
72982	08-05-21	PARKERS BUILDING SUPPLY	GRINDER CUT OFF WHEELS	33.09		33.09
72983	08-05-21	RAY LOPEZ ASSOCIATES	INSPECTIONS	1,490.00		1,490.00
72984	08-05-21	RUSS MARTIN	R.MARTIN JULY MILEAGE REIMB.	36.96		36.96
72985	08-05-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIR	982.13		982.13
72986	08-05-21	STAPLES	OFFICE SUPPLIES	356.89		356.89
72987	08-05-21	TANA PHEMESTER	TOILET REBATE - PHEMESTER	200.00		200.00
72988	08-05-21	THE UPS STORE #5062	MSWD ENVELOPES	478.75		478.75
72989	08-05-21	THE LINCOLN NATL. LIFE INS. CO.	LIFE INS./LTD - AUG. 2021	3,127.51		3,127.51
72990	08-05-21	TIME WARNER CABLE	CABLE BILL	116.39		116.39
72991	08-05-21	UMETECH, INC.	NETWORK SUPPORT	21,336.00	701.25	22,037.25
72992	08-05-21	USA BLUEBOOK	REPLACEMENT FLAG	137.38		137.38

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72993	08-05-21	WATERLINE TECHNOLOGIES INC.	10 DRUMS REFILLED	1,170.70		1,170.70
72994	08-05-21	WESTERN PUMP INC	FUEL PUMP REPAIRS	905.00		905.00
72995	08-05-21	WILLDAN FINANCIAL SERVICES	21/22 ASSESSMENT MGMT FEES	12,010.00		12,010.00
			21/22 SEWER & WATER DELINQUENT ACCTS.			
			21/22 SEWER ON PROP TAXES			
72996	08-05-21	XEROX CORPORATION	COPY LEASE	343.73		343.73
72997	08-13-21	AB FENCE COMPANY, INC.	FENCE REPAIR	2,300.00		2,300.00
72998	08-13-21	ACWA-JPIA HEALTH BENEFITS AUTH.	SEPT. 2021 - MEDICAL/VISION/EAP	99,465.15		99,465.15
72999	08-13-21	ANA RODRIGUEZ	ACCOUNT REFUND 12055 HIGHLAND AVE	115.69		115.69
73000	08-13-21	B-81 PAVING INC	PAVING IN VARIOUS LOCATIONS	46,697.50		46,697.50
73001	08-13-21	BABCOCK LABORATORIES, INC.	3RD QTR. SLUDGE TESTING	714.00		714.00
73002	08-13-21	BRINKS INCORPORATED	WEEKLY PICKUP	169.95		169.95
73003	08-13-21	CANDICE COBB	ACCOUNT REFUND 11497 POMELO DR	124.97		124.97
73004	08-13-21	CMD HOMES CORP	ACCOUNT REFUND 15755 VIA MONTANA	57.95		57.95
73005	08-13-21	CORINNE WEISS STRATEGIC COMMUNICATIONS	JUNE WEBSITE COM. SERVICES	5,287.50		5,287.50
			WEBSITE COM. SERVICES			
73006	08-13-21	D.J. MILLER, INC.	ACCOUNT REFUND GARNET AVE	750.00		750.00
73007	08-13-21	DESERT VALLEY DISPOSAL, INC.	CORP YARD SERVICE CHARGE	1,895.08		1,895.08
			JULY SERVICE CHARGES			
			ROLL OFF FOR HORTON PLANT			
73008	08-13-21	DESERT WATER AGENCY	DWA 4TH QTR RAC FEES	352,208.38		352,208.38
73009	08-13-21	DESERT TIRE AND AUTO REPAIR	UNIT 341 TIRES	415.06		415.06
73010	08-13-21	DESERT DUNES PROP. MGMT	ACCOUNT REFUND 67330 SAN FIDEL WAY	64.54		64.54
73011	08-13-21	EISENHOWER MEDICAL ASSOCIATES INC,	J.MARTINEZ PRE-EMP. SCREENING	130.00		130.00
73012	08-13-21	GABRIELA PEREZ	ACCOUNT REFUND 64126 SILVER STAR AVE	30.01		30.01
73013	08-13-21	GOT SAFETY,LLC	Q3 SAFETY TRAININGS	239.97		239.97
73014	08-13-21	HECTOR ZAMBADA	ACCOUNT REFUND 66740 TWO BUNCH PALMS TRL	78.20		78.20
73015	08-13-21	HEITEC	GENERAL INSPECTIONS	3,087.50		3,087.50
73016	08-13-21	HOME DEPOT CRC PROGRAM	HOME DEPOT CC	2,023.25		2,023.25
73017	08-13-21	INFOSEND INC	JULY SUPPORT FEE	3,884.64		3,884.64
			MONTHLY BILLING			
73018	08-13-21	INLAND WATER WORKS SUPPLY CO.	BALL VALVES	5,548.48		5,548.48
			EXTENDABLE WRENCH			
73019	08-13-21	JASON WEEKLEY	J.WEEKLEY BOOT REIMB.	300.00		300.00
73020	08-13-21	JESSUP AUTO PLAZA	UNIT 390 REPAIRS	2,091.87		2,091.87
73021	08-13-21	LAALA LANDRY	ACCOUNT REFUND 13901 LA MESA DR	62.43		62.43
73022	08-13-21	LAYNE CHRISTENSEN COMPANY	WELL 34	31,752.48		31,752.48
73023	08-13-21	LISA PELTON	NOTARY EXAM	40.00		40.00
73024	08-13-21	MANAGER PLUS SOLUTIONS, LLC.	MANAGER PLUS SERVICE RENEWAL	5,795.00		5,795.00
73025	08-13-21	MANPOWER US INC.	ACCOUNTING TEMP	1,609.50		1,609.50
			STAFFING SERVICES			
73026	08-13-21	MARIA LOPEZ	ACCOUNT REFUND 65347 OSPREY LN	30.30		30.30
73027	08-13-21	MIESHA JOHNSON	ACCOUNT REFUND 65886 AVE CADENA	117.85		117.85
73028	08-13-21	NOBEL SYSTEMS INC.	CMMS ANNUAL SUB	20,590.00		20,590.00

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			CORELOGIC ANNUAL SUB			
			PUBLIC VIEWER ANNUAL SUB.			
73029	08-13-21	PETER TRUSTY	ACCOUNT REFUND 15149 VIA QUEDO	78.83		78.83
73030	08-13-21	PLANIT REPROGRAPHICS	SCAN OF APPROVED MYLARS	28.83	34.28	63.11
			SCANS OF APPROVED SEWER MYLARS			
73031	08-13-21	RAY LOPEZ ASSOCIATES	LANDSCAPE INSPECTIONS	4,870.43		4,870.43
73032	08-13-21	RAYMOND RABAGO	ACCOUNT REFUND 66040 7TH ST	14.95		14.95
73033	08-13-21	ROSA I. AVALOS	ACCOUNT REFUND 67564 SAN TOMAS ST	64.98		64.98
73034	08-13-21	RUDOLPH KOCH	ACCOUNT REFUND 9282 EL MIRADOR BLVD	119.94		119.94
73035	08-13-21	SEAN ALLEN	ACCOUNT REFUND 66231 DESERT VIEW AVE	37.94		37.94
73036	08-13-21	SIERRA BOYLE	NOTARY EXAM	40.00		40.00
73037	08-13-21	SONJA REED	ACCOUNT REFUND 66338 AVE CADENA	180.90		180.90
73038	08-13-21	STURDIVAN EMERGENCY MANAGEMENT	HAZARD MITIGATION PLAN	0.00	9,500.00	9,500.00
73039	08-13-21	THE UPS STORE #5062	SHIPPING FEES	99.29		99.29
73040	08-13-21	TIME WARNER CABLE	CABLE BILL	118.25		118.25
73041	08-13-21	TKE ENGINEERING, INC	CM & INSPECTION	0.00	13,115.00	13,115.00
			DESIGN SERVICES			
			PROJECT MGMT SERVICES			
73042	08-13-21	TULE RANCH/MAGAN FARMS	JULY 2021 SLUDGE HAULING	21,088.59		21,088.59
73043	08-13-21	UNDERGROUND SERVICE ALERT	AUG. 2021 UNDERGROUND SERVICE ALERT	359.63		359.63
			UNDERGROUND SERVICE ALERT			
73044	08-19-21	ADAMS FINANCIAL MGMT	ACCOUNT REFUND 16260 VIA QUEDO	69.64		69.64
73045	08-19-21	ANIBAL JAIME MENDEZ-OLID	ACCOUNT REFUND 64550 PIERSON BLVD #48	111.35		111.35
73046	08-19-21	ANSAFONE CONTACT CENTERS	ANSWERING SERVICE	283.71		283.71
73047	08-19-21	ARAMARK UNIFORM SERVICES, LLC	UNIFORM SERVICES	682.09		682.09
73048	08-19-21	BABCOCK LABORATORIES, INC.	TOTAL N TESTING	178.50		178.50
73049	08-19-21	BASSAM ALZAMMAR	B.ALZAMMAR MILEAGE REIMB.	260.96		260.96
73050	08-19-21	BECK OIL, INC.	DIESEL FUEL	8,767.10		8,767.10
			UNLEADED GASOLINE			
73051	08-19-21	BRIAN RAHIMI	ACCOUNT REFUND 67300 ROCHELLE RD	66.85		66.85
73052	08-19-21	CAR DR. MOBILE	CNG TANK INSPECTION	1,000.00		1,000.00
73053	08-19-21	CATHERINE METZELAARS-JACOBS	ACCOUNT REFUND 66031 3RD ST	16.62		16.62
73054	08-19-21	CITY OF DESERT HOT SPRINGS	UU TAX - JUNE 2021	38,423.92		38,423.92
73055	08-19-21	CLEAN ENERGY	CNG FUEL	20.19		20.19
73056	08-19-21	CWEA	A.GRUNNET CWEA CERT. RENEWAL	91.00		91.00
73057	08-19-21	CYPRESS DENTAL ADMINISTRATORS	SEPT. 2021 DENTAL	4,798.95		4,798.95
73058	08-19-21	DESERT TIRE AND AUTO REPAIR	UNIT 404 TIRES	1,382.85		1,382.85
			UNIT 405 TIRES			
73059	08-19-21	ENTERPRISE FM TRUST	AUG. 2021 LEASE CHARGES	9,968.43		9,968.43
73060	08-19-21	ENVIROGEN TECHNOLOGIES	WELL 26A URANIUM TREATMENT	3,938.37		3,938.37
73061	08-19-21	EXECUTIVE FACILITIES SERVICES, INC.	ADMIN BLDG DISINFECTION	3,464.58		3,464.58
			AUGUST CLEANING SERVICES			
73062	08-19-21	FELICIA OSBORNE	ACCOUNT REFUND 15253 BUBBLING WELLS RD	82.00		82.00
73063	08-19-21	FRANCHISE TAX BOARD	M.VERMEER GARNISHMENT PPE 08.06	549.91		549.91

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73064	08-19-21	FREDDY GUTIERREZ	ACCOUNT REFUND 12355 CACTUS DR #B	10.35		10.35
73065	08-19-21	JASMIN JACKSON	ACCOUNT REFUND 13780 DEL RAY LN	33.47		33.47
73066	08-19-21	JOSE L TORRES	ACCOUNT REFUND 66609 JOSEPH WAY	34.23		34.23
73067	08-19-21	JOSHUA NELSON	ACCOUNT REFUND 9495 VALENCIA DR	82.00		82.00
73068	08-19-21	KAMAN INDUSTRIAL TECHNOLOGIES	REPLACEMENT MOTOR AUGER REPLACEMENT MOTORS	5,946.94		5,946.94
73069	08-19-21	KENNETH PHILLIPS	ACCOUNT REFUND 10825 POMELO DR	60.79		60.79
73070	08-19-21	MANPOWER US INC.	ACCOUNTING TEMP STAFFING SERVICE	2,895.60		2,895.60
73071	08-19-21	MARGARET E FARIAS	ACCOUNT REFUND 66357 2ND ST	41.22		41.22
73072	08-19-21	MARSHA ARGO	ACCOUNT REFUND 16395 AVE ATEZADA	132.78		132.78
73073	08-19-21	MICHAEL JEAN KLUTTS	SCADA SYSTEM REPAIRS	1,057.19		1,057.19
73074	08-19-21	O'REILLY AUTOMOTIVE,INC.	BATTERY CORE RETURN BATTERY FOR PLANT GENERATOR UNIT 397 BATTERY REPLACEMENT	352.86		352.86
73075	08-19-21	ON POWER INDUSTRIES, LLC	INSTALL GENERATOR CONNECTIONS WELL 24/28 CONTACTORS	6,419.13		6,419.13
73076	08-19-21	PARKHOUSE TIRE, INC	FORKLIFT TIRES	1,525.66		1,525.66
73077	08-19-21	PARKERS BUILDING SUPPLY	KEYS THRUST BLOCK CONCRETE MIX WELL 29 MATERIALS	45.09		45.09
73078	08-19-21	PETER TSACHPINIS	ACCOUNT REFUND 62466 N STARCROSS DR	18.80		18.80
73079	08-19-21	PROFORMA	MISC. ADJUSTMENT FORMS	403.81		403.81
73080	08-19-21	REYNA REED	ACCOUNT REFUND 64931 DESERT AIR CT	32.31		32.31
73081	08-19-21	ROCKFORCE CONSTRUCTION, LLC	ACCOUNT REFUND 55860 HAUGEN-LEHMANN WAY	651.00		651.00
73082	08-19-21	SIERRA BOYLE	S.BOYLE TUITION REIMB.	2,986.88		2,986.88
73083	08-19-21	SMARTCOVER SYSTEMS	SMART COVER MONITORING SERVICES	11,462.32		11,462.32
73084	08-19-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	6,071.99		6,071.99
73085	08-19-21	SWRCB ACCOUNTING OFFICE	L.SOTO D1 WATER DISTRIBUTION CERT.	70.00		70.00
73086	08-19-21	STRATEGY 7 CORPORATION	2022 UNIDATA MAINTENANCE	3,600.00		3,600.00
73087	08-19-21	THE LINCOLN NATL. LIFE INS. CO.	SEPT. 2021 LIFE INS.	3,040.70		3,040.70
73088	08-19-21	VERIZON WIRELESS	JULY 2021 VERIZON BILL	4,002.87		4,002.87
73089	08-19-21	VITO ORLANDO	ACCOUNT REFUND 64028 ALPINE ST	171.73		171.73
73090	08-19-21	WATERLINE TECHNOLOGIES INC.	7 DRUMS REFILLED 8 DRUMS REFILLED	1,756.05		1,756.05
73091	08-26-21	ACWA-JPIA HEALTH BENEFITS AUTH.	JULY 2021 - MEDICAL/VISION/EAP	97,547.03		97,547.03
73092	08-26-21	CLINICAL LABORATORY OF SAN BERNARDINO	BOD TESTING H+DC - JULY 2021 LAB SERVICES	1,139.00		1,139.00
73093	08-26-21	COACHELLA VALLEY WATER DIST	1/8 COST SHARE FY21	27,646.02		27,646.02
73094	08-26-21	COLTON GERDES	C.GERDES BOOT REIMB.	221.53		221.53
73095	08-26-21	CORE & MAIN LP	FLANGE GASKETS VALVE REPLACEMENT PARTS	4,612.38		4,612.38
73096	08-26-21	COVE ELECTRIC, INC.	TROUBLESHOOTING & REPAIR BRUSH	356.50		356.50
73097	08-26-21	CV STRATEGIES	JULY SOCIAL MEDIA	11,925.00		11,925.00

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			JULY STRATEGIC COMM.			
			JULY VALUE OF WATER VIDEO			
73098	08-26-21	DESERT PROMOTIONS	PLAQUE FOR RICK LYNEIS RETIREMENT	157.69		157.69
73099	08-26-21	FERGUSON WATERWORKS #1083	3/4"T10 NEPTUNE METER	40,364.87		40,364.87
73100	08-26-21	INLAND WATER WORKS SUPPLY CO.	12"STD X 1"IPT DI SADDLE D/S	11,869.44		11,869.44
			BRZ SADDLE			
			MUELLER NUT & GASKET			
			REPLACEMENT AIRVAC			
			REPLACEMENT GATE VALVE PARTS			
			STRAP SADDLE			
73101	08-26-21	INNOVYZE INC	SOFTWARE & ANNUAL SUB.	4,714.00	20,140.00	24,854.00
73102	08-26-21	LANDMARK CONSULTANTS, INC.	COMPRESSION TEST PP#1	186.00	4,741.20	4,927.20
			SOILS & COMPACTION			
73103	08-26-21	MATHESON TRI-GAS, INC	N95 MASKS	298.34		298.34
			STEEL TOE RUBBER BOOT RESTOCK			
73104	08-26-21	MCMMASTER-CARR	FUSES	103.75		103.75
			HORTON PLANT FUSE			
73105	08-26-21	O'REILLY AUTOMOTIVE,INC.	GRASE GUN FOR PLANT MAINT	210.25		210.25
			UNIT 412 BATTERY REPLACEMENT			
73106	08-26-21	RUHNAU CLARKE ARCHITECTS	MSWD CRITICAL SERVICES CENTER	0.00	7,254.00	7,254.00
73107	08-26-21	SOUTHERN CALIFORNIA EDISON COMPANY	CORP YARD, ANNEX, ENG., MOD., ADMIN	276,256.64		276,256.64
			ELECTRIC BILL - CORP YARD/ADMIN			
			ELECTRIC BILL - DC DILLON LIFT ST./HORTPN PLANT			
			ELECTRIC BILL - WELL 25A/26/WOODRIDGE			
			ELECTRIC BILL - WELL 27			
			ELECTRIC BILL - WELL 28			
			ELECTRIC BILL - WELL 33/27/DESERT VIEW			
			ELECTRIC BILL - WELL 72/29/24			
			WELL 33			
			WELL 33, WELL 30			
			WELL 34, WELL 33			
73108	08-26-21	SOUTHERN CALIFORNIA FLEET SERVICES, INC.	FLEET REPAIRS	1,316.12		1,316.12
73109	08-26-21	STAPLES	PENS, ENVELOPES, CHRG, CABLES, DATE STAMP	412.60		412.60
73110	08-26-21	T4 SPATIAL, LLC	CCTV STORAGE SUBSCRIPTION - SEP 2021	1,250.00		1,250.00
73111	08-26-21	USA BLUEBOOK	HORTON PLANT WATER HOSES	1,658.76		1,658.76
			WRENCH SET/RATCHET/PUMP			
73112	08-26-21	USA-FACT INC	K.KETTENECKER BACKGROUND CHECK	49.88		49.88
			T.NEUMANN BACKGROUND CHECK			
73113	08-26-21	WATERLINE TECHNOLOGIES INC.	11 DRUMS REFILLED #5547201	1,287.77		1,287.77
73114	08-26-21	WHITE CAP CONSTRUCTION SUPPLY	CHOP SAW REPLACEMENT	1,429.53		1,429.53
			WATER COOLER RESTOCK			
9995361	08-03-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 07/23	27,701.87		27,701.87
9995415	08-02-21	USDA RURAL DEVELOPMENT	USDA LOAN PYMT - INTEREST ONLY	5,532.75		5,532.75
9995432	08-05-21	WELLS FARGO BANK	J.HERNANDEZ SP. PAYROLL	8,302.74		8,302.74

CHECK NUMBER	CHECK DATE	PAID TO VENDOR	DISBURSEMENT DESCRIPTION	OPERATING	CAPITAL	TOTAL
9995483	08-09-21	STATE OF CA EDD	2ND QTR STATE 941	364.97		364.97
9995484	08-13-21	WELLS FARGO BANK	AUTO DEP PPE 08/06	110,381.14		110,381.14
9995485	08-13-21	STATE OF CA EDD	STATE TAX DEP PPE 08/06	8,831.95		8,831.95
9995486	08-13-21	WELLS FARGO BANK	FED TAX DEP PPE 08/06	44,543.91		44,543.91
9995487	08-13-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 08/06	8,826.01		8,826.01
9995488	08-12-21	SLOVAK BARON EMPEY MURPHY & PINKNEY LLP	LEGAL FEES - JULY 2021	56,701.50		56,701.50
9995567	08-19-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	PERS PPE 08/06	27,721.43		27,721.43
9995686	08-25-21	CALIF PUBLIC EMPLOYEES RETIREMENT SYSTEM	GASB 68 FEE 2021/2022	700.00		700.00
9995687	08-27-21	WELLS FARGO BANK	AUTO DEP PPE 08/20	109,942.46		109,942.46
9995688	08-27-21	WELLS FARGO BANK	FED TAX DEP PPE 08/20	40,876.19		40,876.19
9995689	08-27-21	STATE OF CA EDD	STATE TAX PPE 08/20	8,342.38		8,342.38
9995690	08-20-21	LINCOLN NATIONAL LIFE INS CO	DEF COMP PPE 08/20	8,479.02		8,479.02
PR080621	08-06-21	EMPLOYEES	PAPER PAYROLL CHECKS	0.00		0.00
PR081321	08-13-21	EMPLOYEES	PAPER PAYROLL CHECKS	-815.48		-815.48
PR082621	08-26-21	EMPLOYEES	PAPER PAYROLL CHECKS	22,625.30		22,625.30
PR082721	08-27-21	EMPLOYEES	PAPER PAYROLL CHECKS	0.00		0.00
			CURRENT CHECK TOTAL	1,875,197.9	64,774.5	1,939,972.4
TOTAL				1,875,197.91	64,774.56	1,939,972.47
177 records listed						

Danny Friend

From: Gerald McKenna [REDACTED]
Sent: Thursday, September 2, 2021 1:33 PM
To: Danny Friend
Subject: Horton Plant



IRONSCALES couldn't recognize this email as this is the first time you received an email from this sender [REDACTED]

Hello Danny

I wanted to thank you and Lee for the very thorough tour of the plant yesterday and for the full and open discussions we had.

To say I am better informed as a result would be a huge understatement. I have a much better appreciation of what you are challenged with and the limited resources you have available to meet those challenges.

I hope your proposed changes and upgrades go smoothly and that they help you to continue your work to improve the operation of the plant.

Best regards

Gerald McKenna.

AGENDA REPORT

**REGULAR BOARD MEETINGS SEPTEMBER 16 & 20, 2021
UPCOMING EVENTS REQUIRING BOARD APPROVAL
AND DIRECTOR REPORTS**

UPCOMING EVENTS OF INTEREST

In accordance with Resolution 2009-2, attendance by a Director at any event not listed on the Board Affiliations List as adopted, may be approved by the Board of Directors as District service, and compensated accordingly.

Date	Event	Confirmed Attendees
10/8	PSUSD LEGISLATIVE BREAKFAST	WRIGHT, SEWELL

OTHER MEETINGS ATTENDED (no daily stipend was claimed)

Date	Event	Attendees
7/15	ACWA REGION 9 NOMINATING COMMITTEE MEETING	WRIGHT
7/14	PRIORITY ONE COACHELLA VALLEY	MARTIN
7/15	DVBA NETWORKING NIGHT	MARTIN
7/15	COUNTYWIDE OVERSIGHT BOARD MEETING	MARTIN
7/20	CVB MEET & SEE	MARTIN
7/21	CHAMBER MIXER	MARTIN
8/24	PS NETWORK MEETING	MARTIN

DIRECTOR REPORTS

(Per GC 53232.3(d) brief reports on meetings attended for which a daily stipend was claimed)

Date	Event	Attendees
7/6	DHS CITY COUNCIL MEETING	MARTIN
7/13	CVWD BOARD MEETING	DUNCAN
7/14	DVBA BOARD MEETING	MARTIN
7/20	RIVCO BOARD OF SUPERVISORS MEETING	MARTIN
7/27	RIVCO BOARD OF SUPERVISORS MEETING	MARTIN
7/27	CVWD BOARD MEETING	DUNCAN
8/3	DWA BOARD MEETING	DUNCAN
8/5	DVBA LEGISLATIVE MEETING	MARTIN
8/10	CVWD BOARD MEETING	DUNCAN

8/12	DVBA BOARD MEETING	MARTIN
8/13	BIA WATER CONFERENCE	MARTIN
8/17	DWA BOARD MEETING	DUNCAN
8/17	BOARD OF SUPERVISORS MEETING	MARTIN
8/24	BOARD OF SUPERVISORS MEETING	MARTIN
8/30-9/2	CSDA CONFERENCE	DUNCAN, MARTIN, SEWELL



General Manager's Report September 2021



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APPENDIX B - Federal Update from Carpi & Clay

APPENDIX C – Wastewater and Water Production Tables

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ADMINISTRATION

Accounting Department

The Accounting Department continues to work with its vendors to complete the yearly and necessary tasks to meet State and Federal reporting requirements and the strategic goals established by the Mission Springs Water District Board of Directors (Board). Below are project highlights and summaries for the previous month:

Budget Items

As with every year, the District sends notices to its sanitary customers providing them with an opportunity to pre-pay their 2021/22 sanitary fees. The District received approximately \$599,617 in pre-payments this fiscal year. For those who do not pre-pay their sanitary fees, the amount is placed on property taxes which this year amounted to \$5,792,201.

Total cash receipts for the month of July and August, amounted to \$1,947,503 and \$1,842,265, respectively. Receipts consisted primarily of customer bill payments. The District also received approximately \$283,000 from the Riverside County for property tax collections that were paid in the last two months.

Cash Disbursements for the month of July amounted to:

Accounts Payable July – \$2,637,430.85. The largest payments were to CalPERS (\$512,249.00) and Payroll (\$394,980.91). The CalPERS payment was the annual pre-payment CalPERS Unfunded Liability.

Cash Disbursements for the month of August amounted to:

Accounts Payable - \$1,918,162.65. The largest payments were to Desert Water Agency (\$352,208.38) and Payroll (\$367,986.59).

Delinquent Account Amounts Sent To The Property Taxes

District Staff sent delinquent account amounts to Riverside County to have them add to the property taxes. This year \$801,631.01 in delinquent account amounts were sent to Riverside County after removing the late fees as instructed by the board. A breakdown of the accounts are below.

▪ Closed Accounts	\$42,665.78
▪ Service Fee Accounts	\$391,570.46
▪ No payment over 90-day accts	\$246,414.22
▪ Sewer back charged accounts	\$120,980.55

Customer Service Department

Continued overview of Lobby closure and COVID-19 response

With the customer lobby access still closed to the public, MSWD Customer Service Representatives continue to assist our customers with minimal disruption. We feel comfortable remaining closed if needed due to COVID-19, customers have adapted, and we are assisting in creative ways if needed if the customer does not have internet access.

- If customer states they have been out of work due to COVID-19 we will remove late charges, and as with all customers create extensions and payment plans.
- All Customer Service staff is working in office with distancing.
- All Field Service Technicians are working to serve customers in individual trucks.
- Applications available on MSWD.org
- Mailing paper applications to customers that are unable or uncomfortable with online processes.

Ways to pay bills during lobby closure

- Customer can drop payments (check or money order) in the drop box
- Customers can pay at 7-11 in DHS, Walmart and must have their bills present
- Payment Portal on MSWD.org
- Customers can call in and pay through the IVR system
- Paypal option through Paymentus

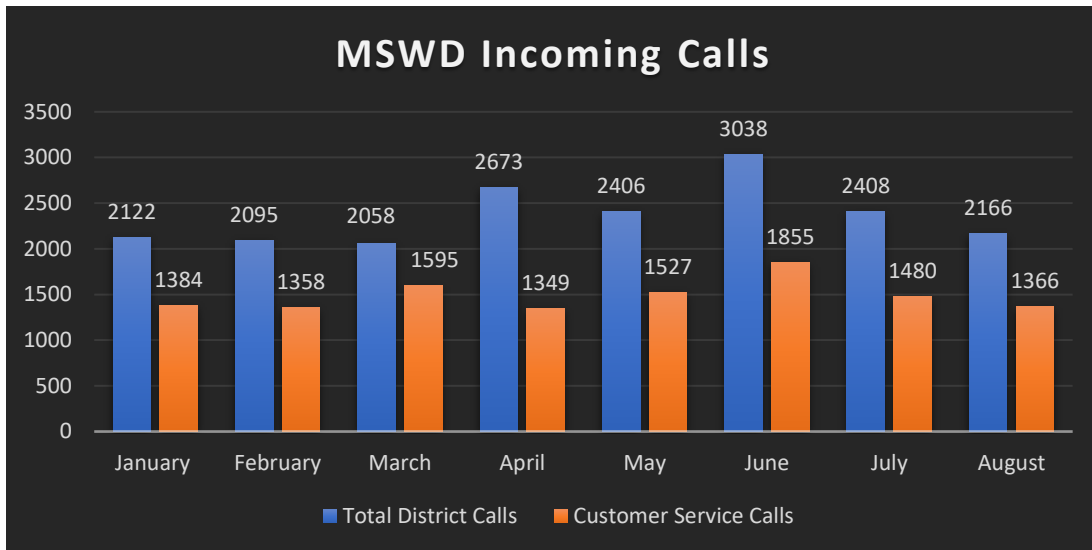
Disconnections due to Non-Payment

On April 2, 2020, Governor Newsom issued Executive Order N-42-20 prohibiting shut offs of water service to residences and critical infrastructure sector small businesses. As such, MSWD has been working with and tracking those customers who have been the most impacted by the COVID-19 pandemic. Beginning in March, MSWD Customer Service staff began contacting those customers with high, unpaid balances to inform them of programs and options which are available. The programs and options include waiving of late fees, 12-month payment plans, utilization of the CARE program or Help2others for bill assistance, and high consumption adjustments due to leaks.

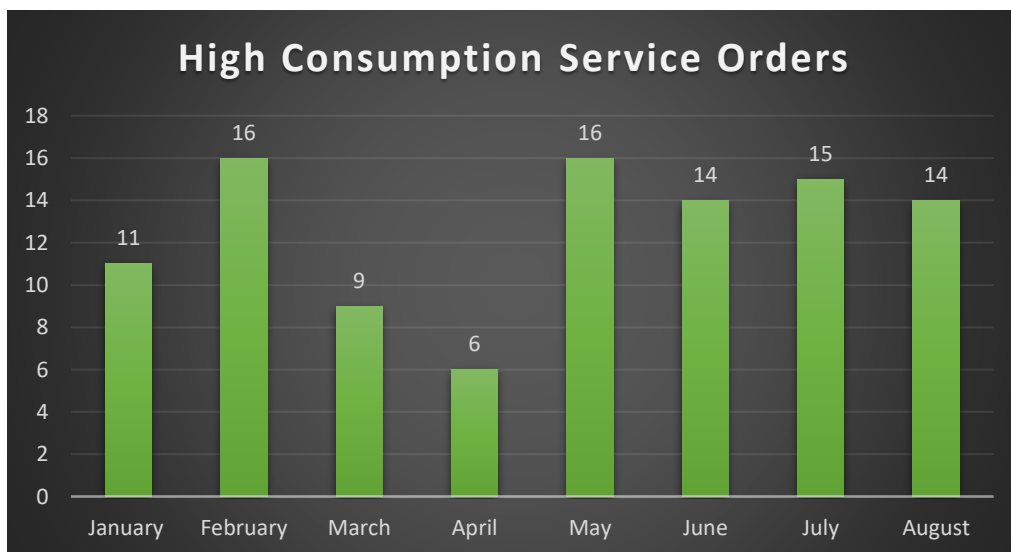
On June 11, 2021, Governor Newsom issued Executive Order N-08-21 which states that Executive Order N-42-20 shall remain in place and shall have full force and effect through September 30, 2021, upon which time it will expire. Staff will continue to contact and work with customers to bring their accounts into good standing to avoid disconnections by setting payment plans, utilize the CARE program, United lift, or Help2others for bill assistance prior to starting disconnections potentially October 2021.

Calls into the Customer Service Department

Customer service calls continue to be fairly level and significantly lower than our monthly highs in July and August 2020. Many calls are for payment extensions, late fee removal requests, lien release requests, new property start/stop service. The chart below represents MSWD incoming calls and those received by the Customer Service staff.



Similarly, we continue to see a decline in the high consumption service calls from the highs at the end of 2020. These service calls typically include reviewing the customers consumption history, usage alerts, and/or limited site investigations.



Purchasing Department

The Purchasing Department Staff continues provide sanitization supplies to ensure wipes, hand sanitizer, disinfectants are available to all District buildings, and vehicles for the safety of the staff.

Price increases and supply chain issues have begun to surface within our industry. Specifically, PVC pipe and fittings, ductile iron pipe and fittings, restraints, hydrants, and valves, as well as many other products, are experiencing significant shortages that could lead to extended lead times. Along with these supply chain problems, pricing continues to escalate. These problems exist with both domestic and import materials. We will continue to monitor the situation and bring any supply issues or substantial pricing increases to the Board immediately.



ENGINEERING AND OPERATIONS

Engineering Department

Below is a list of Capital Projects and status updates.

Well 42 Project

The contractor, Layne Christensen Company, completed well development activities, including installation of the pump development, step testing, constant rate testing, and well recovery. Following, Layne removed the test pump and disinfected the well. Layne will now begin working on the site improvements, starting with construction of the building pad, and installation of the electrical conduits and storm drain system.

The hydrogeologist (EnviroLogic Resources) completed monitoring of existing adjacent wells during the well development to evaluate how the groundwater basin responded to the new pumping. Preliminary results show that the new well will produce 125% of its design capacity and have little influence on other MSWD wells.



Staff and construction management consultant (TKE Engineering) continued coordinating with Southern California Edison regarding the new electrical service. In August, the construction was put on hold, while the revisions to the electrical and motor control system and SCE service were evaluated and approved for construction.

N. Indian Canyon Drive Sewer Project

Staff, construction management consultant (TKE Engineering), and contractor (Downing) have completed the project completion process. Staff is bringing the Notice of Completion to the Board for approval.

Vista Reservoir No. 2

The public comment period for the final draft Initial Study (IS) and Mitigated Negative Declaration (MND) closed in early June. The District received comments from the California Department of Fish and Wildlife and Colorado River Basin Regional Board. Staff and CEQA consultant (Tom Dodson and Associates) have compiled the comments received and prepared a formal response. Approval of the IS/MND will be brought to the Board in September.

Desert Willows Community Water Line Replacement

Van Dyke Corporation has completed construction and Staff is working toward project closeout. The Notice of Completion will be presented for acceptance at the October Board of Directors meeting.

AD-18 – GQPP Sewer Project Areas “H” & “I”

Staff and consultant continued coordination with one property owner regarding a required pipeline/utility easement and selected an alignment alternative that is being circulated to the owner for approval. Acceptance of the alignment alternative has not been received from the owner; therefore, Staff placed the final design on hold until the alignment and easement are finalized.

The public comment period for the final draft Initial Study (IS) and Mitigated Negative Declaration (MND) closed in early June. The District only received one comments from Cal Fire. Staff and CEQA consultant (Tom Dodson and Associates) have prepared a formal response and final environmental documents. Staff is bringing the final Initial Study (IS) and Mitigated Negative Declaration (MND) to the Board for adoption in September.

Water System and Wastewater System Comprehensive Master Plan Update

The consultant (Michael Baker International) began preparing the model for the water and sewer system. In addition, they prepared an outline for both master plan documents and system design criteria technical memorandum for District review.

Horton Odor Control Project

Staff and construction manager consultant (Michael Baker International) are continuing to process material submittals. Material deliveries are expected in September allowing construction to commence. On September 1 the contractor marked out the equipment locations. Project construction will start on September 7 and is scheduled for completion November 11.

Backup Generators for Well Sites 27-31, 32 and 37 Projects

First review plans and specifications were received in on July 1 and were reviewed by staff. A project kickoff meeting was held on August 2 followed by a site visit during which equipment locations for the three sites were confirmed. Approved equipment locations were received from consultant on August 3. MSWD staff potholed and confirmed existing concrete thickness at the Well 31 and well 32 sites on August 4. Consultant and MSWD staff are considering modifications to the Well 31 and 27 site. Final design approval is expected by the end of September.

Horton Effluent Filtration System

Staff met with the design consultant (TKE Engineering) to provide technical information on the effluent system, flow rates, and confirm the system hydraulics. Staff received the 60% design at the end of June and will complete plan check in the coming weeks.

Well 22 Rehabilitation

Staff completed plan check of the 60% design and returned comment to the consultant. The consultant (TKE Engineering) will be completing 90% design in September.

AD-18 GQPP Sewer Project Area "D3-1"

Staff is review the draft plans, specifications, and engineer's estimate, to evaluate project feasibility for further discussions regarding the next steps which include postponement and/or bidding.



Operations & Maintenance

Construction & Maintenance

Construction & Maintenance Staff (C&M) completed approximately 388 water line location requests in July and 390 water line location requests in August. Staff continues to use iPads with the GeoViewer Mobile app to streamline and manage line locations. C&M also replaced 27 water services and repaired 18 service line leaks and 8 main line leaks in the month of July, and 18 water services and repaired 47 service line leaks and 9 main line leaks in the month of August. Approximately 293,010 gallons of water loss was recorded due to water leaks in July and 153,035 gallons of water loss in the month of August.



Staff continues to implement the maintenance programs, which consist of ground valves, blow-offs, Cla-Val valves, and fire hydrants. There were 138 water valves exercised in July and 127 ground valves exercised in August, 104 fire hydrants flushed in July and 56 fire hydrants flush in August, all Cla-Val valves have received their yearly service, and all air release valves have received their yearly inspection.

A total of 181 work orders were processed in July and August using the CMMS module.

Operations staff was notified of a possible issue with a water main that runs withing a backyard easement. After visiting the site, staff found that a private contractor had excavated and exposed the District's water main to build a retaining wall. Staff immediately contacted the Engineering Department and the City notifying them of the issue. Staff also contacted the contractor and requested the contractor to backfill and support the water main immediately. Under supervision of District and City staff, the water main was backfilled and protected in place.



Fleet and Facility Maintenance

All District buildings continue to be cleaned and disinfected weekly, Tuesday through Friday, by our janitorial company. Disinfection is completed four times a week and janitorial services are completed twice a week. Building maintenance continues at District facilities such as the Administration Building and Corp Yard. Maintenance includes testing

standby generators plumbing repairs, light replacements, smoke detector battery replacements, fire extinguishers inspected, and flagpole repairs.

The District continues to utilize Southern California Fleet Services for maintenance and repairs of District vehicles and equipment. Below is a listing of services provided in July;

- Units 380, 384, 397 and 388 were all serviced
- Exhaust repairs were done on Unit 365
- Fuel leak was repaired on Unit 358
- Front brakes were replaced on Unit 388
- Rear brakes were replaced on Unit 380
- Repairs were made to the front bucket of skip loader and mechanical seal on 6-inch trash pump
- All CNG trucks had tank certifications done to them. Tanks are required to be certified every three years.
- Replaced tires on forklift and front tires on Unit 391

Below is a listing of services provided in August;

- Unit 399 was serviced
- Brake repairs were done on Units 399 and 381
- Alternator was replaced to fix charging issue on Unit 390

Collections

No Sanitary Sewer Overflows occurred in the collection system with no problems at the Dos Palmas Lift Station. The operators continued to visit the site each day to check proper pump operation, ensure the SCADA system is working properly, and checking site security.

During a rain event in July, the radio antenna at the lift station was damaged and was replaced by Forshock which was an improvement to the security and transmission of the SCADA system at the lift station to the Horton Plant. The Collections department cleaned the wet well of the lift station to remove any rags and debris.

Approximately 12.34 miles of sewer mainline was cleaned in the Dos Palmas service area. This included 253 segments of 8" VCP sewer pipe. The communities of Skyborne and Century Vintage were cleaned during the month, as the crew continues to clean the northeast portion of the sewer system.



The Collections department continues to help at the WWTP as needed.

Wastewater

Staff spent a combined 639-man hours performing routine plant maintenance, equipment maintenance and plant operations at the Horton and Desert Crest plants. Also during this timeframe, staff spent 200-man hours operating the sludge belt filter press, filling and removing 14 trailers of sludge from the Horton and Desert Crest Plants.

The following table shows the average daily flow and peak daily flow for the Horton and Desert Crest Plants.

WASTEWATER FLOW MGD				
2021/22	HORTON PLANT		DESERT CREST	
	Avg. Daily Flow	Peak 24 hr. Flow	Avg. Daily Flow	Peak 24 hr. Flow
July	1.987088	2.104457	0.042128	0.058130
Aug.	2.059728	2.224424	0.052436	0.064940
Sep.				
Oct.				
Nov.				
Dec.				
Jan.				
Feb.				
Mar.				
Apr.				
May				
June				

Additional wastewater flow information is provided in Appendix C.

Staff collected 23 samples and spent 40-man hours performing laboratory duties and analysis for process control and regulatory reporting purposes. Both plants are producing an effluent that meets the District's discharge requirement. Wastewater staff along with Engineering staff will soon begin working on a Cloth Media Filter CIP project to help better the effluent leaving the process at Horton WWTP.

Staff continues to pull the influent pumps due to ragging of "flushable wipes" as needed on a weekly basis, including weekends. Pumping GPM and Hz on the pumps are checked daily to ensure pumps do not need to be pulled out more frequently.

everal the systems that received maintenance or replacement during the month were:

- Cove Electric was onsite to run new wire from the breaker panel to the motor on aerator #4 due to a short in the cables causing the aerator to motor fail at start-up.
- Staff initiated an Operator in Training (OIT) program this month in the Wastewater Department. Jacob Mosqueda was brought onboard through Manpower, a temporary employment agency on August 6, 2021. The OIT Program will assist individuals with becoming well trained, certified grade I wastewater treatment plant operators who are qualified by virtue of academic education and practical experience to perform their duties in a professional, safe, and permit compliant manner. This program is in a trial phase and will expand soon.
- All three ponds at Desert Crest WWTP had the spoils piles leveled off. All three ponds were weeded, and any dried sludge removed.

Through continued develop in the Desert Hot Springs area and at the request of new consumers, sanitary services are always being added to the collection system. Below is a summary of new sanitary service connections added each month.

New Sanitary Service Connections to Collection System

	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17
July	18	8	7	9	51	2
Aug.	20	4	1	8	53	2
Sep.		5	2	12	8	11
Oct.		9	4	8	12	4
Nov.		50	10	9	7	7
Dec.		9	3	3	64	1
Jan.		21	7	1	16	8
Feb.		23	5	1	42	0
Mar.		48	1	0	23	5
Apr.		18	3	3	15	30
May		17	11	3	20	45
June		21	7	3	6	70
Annual Total	38	233	61	60	317	185

Additional sanitary service connection information is provided in Appendix C.

Water Production

Staff collected 45 routine samples, 6 general physical samples, and nitrate samples at Well 24 and uranium samples at Well 26A for analysis in July. Staff worked closely with the lab when changing sampling dates or taking grab Bac-T samples for any mainline shutdowns. The MSWD Monthly Coliform Monitoring Reports for May were sent out to the State Water Regional Control Board on August 5, 2021.

Staff collected 56 routine samples, seven general physical samples, and uranium samples at Well 26A for analysis in August. The MSWD Monthly Coliform Monitoring Reports for August were sent out to the SWRCB on 9/7/2021.



Staff continues to conduct chlorine pump maintenance and inspections at all the well sites throughout the district.

Staff sounded water levels for 13 production wells and nine monitoring wells. Staff usually strives to get soundings done early in the month and conduct other maintenance for the month after the soundings are completed. Staff has assigned sites; however, they will help each other with soundings if needed to get these done early in the month.

Water Production staff completed several site-specific activities in July and August. A highlight of those activities are below;

- On July 1, 2021 Layne Christensen came out to the well 34 site and began to pull the motor and pump. Since this was completed, the District has received a full report of the equipment that was taken out and a video of the well. Operations and Engineering Staff are currently reviewing the reports and video to determine the best rehabilitation plan for this well.



- On July 8, 2021 Well 26 piping was painted by a contractor. Staff helped oversee the process that took a couple of days.



- On July 13, 2021 staff performed the monthly fire pump test at Gateway reservoir. This test is performed monthly to make sure that the fire pump is in good working condition.
- Staff conducted the overflow maintenance of 19th Street Reservoir on July 15, 2021. This maintenance is conducted monthly and reported on our water loss report.
- Staff continues to oversee the landscape work at 36 sites throughout the district. This month MSWD had a new landscaping company start working on 36 sites.
- Staff continues to oversee the work of the pest control company. The pest control service is done on the third Friday of every month. This month the service was completed on July 16, 2021.
- Staff continues to work with Southern California Edison (SCE) on any possible PSPS events. This month we had two separate power outages in the Whitewater area. Staff was quick to react and take a generator out there. Staff has permanently left a generator at Well 25A.
- Staff continues to work with Field Service/Customer Service on the planning of construction meter set locations. Staff closely monitors the water usage in the areas that have construction meters.



- The Production team continues to train new staff and make sure that they have support when on standby.

- For the past few months, staff has been evaluating new chlorine feed pumps at our well sites. Staff has found that by installing the pumps on top of the chlorine barrels and running the suction pipe down with a foot valve, it provides better operations of the pumps and solved any issues of air-locking.



Well 33 Solar Site

Staff continues to monitor the performance of the solar system. The March performance report showed that the system produced 273,730 kilowatt hours, which is within 91% of expected energy output for the month of July.

Well 24 Electrical Panel Rehabilitation Project

A pre-construction meeting is scheduled for Tuesday, August 3rd. A notice to proceed will be issued for September 1, 2021. Completion of this project is anticipated for December 2021.

Perimeter Fencing Kerr Property – Airport Well

Due to some weather delays and materials delivery issues, a no cost change order was executed to extend the contract term an extra seven (7) days. The new date of completion for all work is August 5, 2021.

Through continued develop in the Desert Hot Springs area and at the request of new consumers, water services are always being added. Below is a summary of new water services added each month.

New Water Services added Monthly

	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17
July	18	7	4	5	7	2
August	19	6	10	5	3	2
September		18	2	14	4	13
October		13	3	21	8	3
November		10	16	4	0	7
December		2	17	3	3	2
January		15	6	3	20	1
February		13	8	5	11	1
March		16	2	3	6	5
April		11	1	3	7	11
May		15	12	5	11	9
June		24	11	2	8	2
Annual Total	37	150	92	73	88	58
Avg./ Mo.	3.08	12.50	7.67	6.08	7.33	4.83

The total water connections in the District's system are currently 13,179



As expected, the new water services increase the amount of water needed to be pumped; however, the weather and water conservation continue to be the primary factor in MSWD water production. The following table summarizes the MSWD water production for each month since FY 2016.

Monthly Water Production

	FY 2021/22	Variance from prior year		FY 2020/21	FY 2019/20	FY 2018/19	FY 2017/18
	AF	AF	%	AF	AF	AF	AF
July	796.67	-61.10	-7.1%	857.77	853.23	857.20	835.87
August	840.02	-45.29	-5.1%	885.31	795.18	806.47	829.93
September		0.00	0.0%	784.80	757.08	689.47	712.40
October		0.00	0.0%	755.84	709.39	709.81	733.86
November		0.00	0.0%	690.13	619.87	631.75	642.41
December		0.00	0.0%	588.32	537.23	502.16	584.24
January		0.00	0.0%	537.96	553.20	570.20	599.52
February		0.00	0.0%	495.61	520.85	415.49	512.79
March		0.00	0.0%	625.80	557.73	490.92	536.09
April		0.00	0.0%	649.34	573.02	635.08	644.06
May		0.00	0.0%	723.62	698.99	598.36	697.15
June		0.00	0.0%	761.63	806.02	710.39	688.74
TOTAL	1636.69	-106.39	-6.1%	8356.13	7981.79	7617.30	8017.06



Water Resources

Below is a list of water resources related activities for the prior month:

Integrated Regional Management (IRWM)/Coachella Valley Regional Water Management Group (CVRWMG)

- The CVRWMG held its monthly meeting and discussed current grant funded projects and upcoming grant funding opportunities.
- The CVRWMG is coordinating with other Colorado River Funding Area regions regarding a potential cost split for the upcoming Proposition 1 Round 2 Implementation funding. The Group expects to have additional details in September.
- The CVRWMG was not selected for grant funding to prepare a water conservation technical study under the US Bureau of Reclamation Water Conservation Field Services grant program. However, based on feedback from WaterNow, the CVRWMG expects to reapply for the grant in the next cycle.

Mission Creek Subbasin SGMA and 2022 Alternative Plan Update

- The consultants (Wood and Kennedy Jenks) are preparing the final administrative draft sections for review and comment, in preparation of releasing the public draft in September.
- Staff and consultants (TKE Engineering and EnviroLogic Resources) completed review and comment on the remaining administrative draft plan sections.
- The agencies and consultant completed additional model forecasting scenarios based on refined future projects and Sustainable Management Criteria.

San Geronio Pass Subbasin SGMA and 2022 Groundwater Sustainability Plan

- Staff and consultants (TKE Engineering and EnviroLogic Resources) completed review and comment on additional administrative draft plan sections.
- Staff and consultants (TKE Engineering and EnviroLogic Resources) completed refinements to the Sustainable Management Criteria and selection of “key wells” that will be used to monitor sustainability.
- The consultants (Provost & Pritchard) are preparing the final administrative draft sections for review and comment, in preparation of releasing the public draft in September.

Indio Subbasin 2022 Alternative Plan Update

- Staff attended a virtual workshop on the current status of the plan update.
- Staff expects to receive the public draft for review in September.

Salt and Nutrient Management Plan (SNMP)

- The agencies received comment from the Regional Board in June. The agencies met in August to review and respond to the comments. A response to the Regional Board's comments will be submitted in September.

2020 Regional Urban Water Management Plan (UWMP)

- Following the Boards approval of the 2020 UWMP and 2021 Water Shortage Contingency Plan (WSCP), staff prepared an ordinance to implement the WSCP.
- The Board adopted the WSCP ordinance at the July meeting. Following, staff prepared and posted the public notice for the ordinance.
- This constitutes the final step in the 2020 UWMP process.



PUBLIC AFFAIRS

Below is a list of Public Affairs activities:

Upcoming Events

If any events occur throughout the month, they will be communicated either from the PR team or Dori Petee.




Outreach

CV Water Counts: The CV Water Counts Outreach report for the month of July and August can be found in Appendix D. Next CV Water Counts meeting: July 20th at 2:30 pm

MSWD Digital Advertising report for month of July and August can be found in Appendix D. This includes the two types of ads we are running on Google and Facebook as well as website analytics.

- Google – 3 total ads: Value Campaign (Ready for you 24/7), Turf Rebates and Here for You (Help2Others)
- Facebook/Instagram: Value Campaign (Ready for you 24/7, Turf Rebates and Here for You (Help2Others)

MSWD Social Media Report for month of July and August can be found in Appendix D. This report highlights Facebook, Twitter and Instagram posts.

Post Content	Total Engagements	Reactions	Comments	Shares	Post Link Clicks	Other Post Clicks
<p>Mission Spring... Fri 8/13/2021 9:00 am PDT</p> <p>#DYK... we are building a new Regional Water Reclamation Facility to better serve you!</p> 	26	13	2	2	—	9
<p>Mission Spring... Fri 8/20/2021 1:55 pm PDT</p> <p>Help save lives and get a free commemorative T-shirt! MSWD is proud to team u...</p> 	22	11	0	2	3	6
<p>Mission Spring... Sun 8/15/2021 9:15 am ...</p> <p>Don't let FOGs become clogs! Fats, Oils and Grease may pour down the drain easily,</p> 	14	11	0	2	—	1



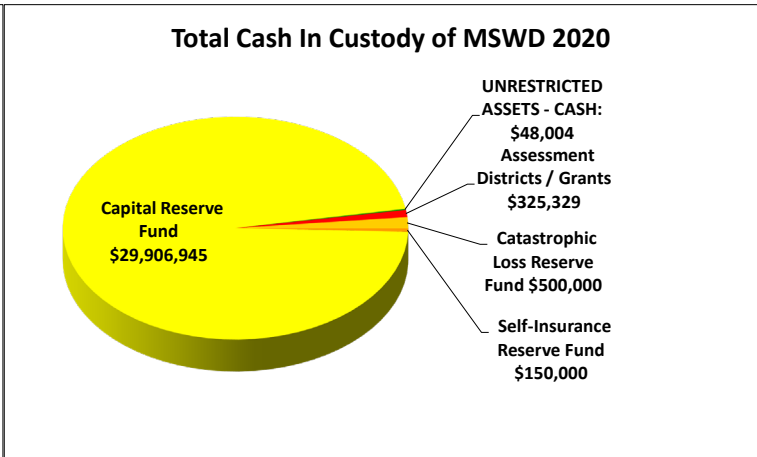
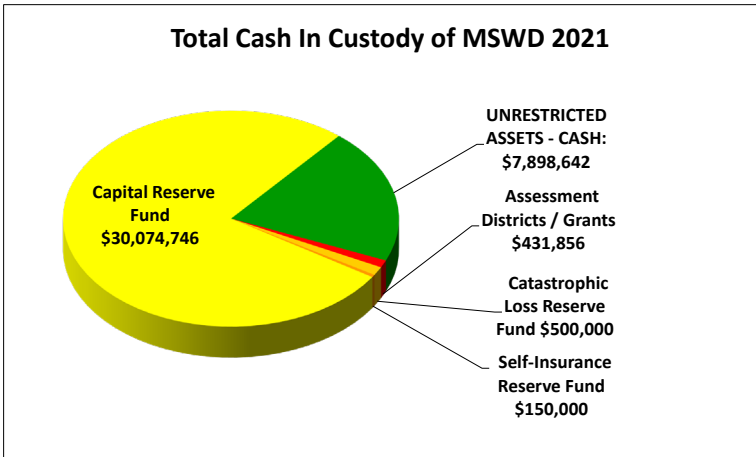
APPENDIX A – Financial Report

MISSION SPRINGS WATER DISTRICT
 COMBINED FUNDS
 DISTRICT SUMMARY
 JULY 1, 2020 TO MAY 31, 2021

YEAR TO DATE					JULY 1, 2019 TO MAY 31, 2020			
ACTUAL	BUDGET	FAVORABLE (UNFAVORABLE)	FAVORABLE (UNFAVORABLE)		ACTUAL	BUDGET	FAVORABLE (UNFAVORABLE)	FAVORABLE (UNFAVORABLE)
		VARIANCE AMOUNT	VARIANCE PERCENT				VARIANCE AMOUNT	VARIANCE PERCENT
19,492,212	20,016,699	(524,487)	-3%	OPERATING REVENUE:	16,344,876	15,725,807	619,069	4%
14,259,297	16,147,080	1,887,784	12%	OPERATING EXPENSE:	14,141,449	15,603,734	1,462,285	9%
5,232,915	3,869,619	1,363,297	35%	NET OPERATING INCOME	2,203,427	122,073	2,081,354	1705%
2,831,469	11,943,511	(9,112,042)	-76%	ADD NON-OPERATING REVENUE	3,589,569	2,989,555	600,014	20%
557,672	708,587	150,915	21%	LESS NON-OPERATING EXPENSE	1,196,270	1,261,964	65,694	5%
2,273,797	11,234,924	(8,961,127)	-80%	NET NON-OPERATING INCOME	2,393,299	1,727,591	665,708	39%
7,506,713	15,104,543	(7,597,830)	-50%	NET INCOME	4,596,726	1,849,664	2,747,061	149%

OTHER INFORMATION

	13.43	DEBT SERVICE RATIO	12.00
	0.02%	INVESTMENT RETURN	0.11%
	\$ 34,708,247	CASH - JULY 1	\$ 34,961,554
	\$ 4,346,997	INCREASE/(DECREASE) IN CASH	\$ (4,031,277)
	\$ 39,055,244	CASH - END OF PERIOD	\$ 30,930,278
	\$ 7,898,642	UNRESTRICTED CASH	\$ 48,004
	\$ 31,156,602	RESTRICTED CASH	\$ 30,882,274
	\$ 39,055,244	CASH IN CUSTODY OF MSWD	\$ 30,930,278
WELLS FARGO	\$ 119,995	RESTRICTED - ASSESSMENT DISTRICTS	\$ 13,468
CALTRUST	\$ 6,437,322	RESTRICTED - SHORT TERM FUND	\$ 6,407,824
CALTRUST	\$ 22,050,935	RESTRICTED - MEDIUM TERM FUND	\$ 21,915,154
CALTRUST	\$ 2,548,350	RESTRICTED - LIQUIDITY FUND	\$ 2,545,829
	\$ 31,156,602	RESTRICTED TOTAL CASH	\$ 30,882,274
		WELLS FARGO	
		CALTRUST	
		CALTRUST	
		CALTRUST	



MISSION SPRINGS WATER DISTRICT
FINANCIAL REPORT
MAY 31, 2021

MISSION SPRINGS WATER DISTRICT
COMBINED FUNDS
CONSOLIDATING BALANCE SHEET
MAY 31, 2021

MAY 31, 2021 - EXCLUDING AD# 13						SCHEDULE A June 30, 2020		
SEE	WATER FUND		SEWER	GENERAL	TOTAL	FINANCIAL STATEMENTS	ELIMINATE AD#13	BOOK TOTAL
SCH	"DHS"	"IDE"	FUND	FUND				
CURRENT ASSETS:								
Cash	F	2,696,228	5,022	2,517,345	2,680,048	7,898,642	3,758,832	3,758,832
Accounts receivable-								
Water and sewer		3,045,468	25,453	(34,691)		3,036,230	2,724,581	2,724,581
Other		618,317	17,264	564,317	0	1,199,897	1,409,712	1,409,712
Reimbursable jobs		36,045	0	25,295	40,450	101,790	79,787	79,787
Prepaid expenses					155,623	155,623	270,145	270,145
Inventory					1,722,366	1,722,366	420,183	420,183
Total current assets		<u>6,396,059</u>	<u>47,739</u>	<u>3,072,264</u>	<u>4,598,487</u>	<u>14,114,549</u>	<u>8,663,240</u>	<u>8,663,240</u>
RESTRICTED ASSETS:								
Cash	F	14,738,424	(3,688,266)	13,966,406	6,140,038	31,156,602	30,949,414	30,949,414
Assessments receivable				7,825,086		7,825,086	8,667,083	12,803,872
Taxes receivable		(159,437)	30,318	(105,995)	(132,769)	(367,883)	65,454	65,454
Restricted cash with trustees	F					0	0	1,088,039
Issuance costs for long-term debt		2,275	1,988	0		4,263	5,583	5,583
Total restricted assets		<u>14,581,262</u>	<u>(3,655,960)</u>	<u>21,685,497</u>	<u>6,007,269</u>	<u>38,618,068</u>	<u>39,687,534</u>	<u>44,912,362</u>
UTILITY PLANT:								
Utility plant in service		89,615,538	2,620,014	81,512,731	8,371,502	182,119,785	182,119,785	182,119,785
Less accumulated depreciation		(43,368,083)	(1,178,627)	(26,350,668)	(3,554,988)	(74,452,366)	(70,761,037)	(70,761,037)
Total		<u>46,247,455</u>	<u>1,441,387</u>	<u>55,162,063</u>	<u>4,816,514</u>	<u>107,667,419</u>	<u>111,358,748</u>	<u>111,358,748</u>
Construction in progress		12,542,408	0	8,247,259	732,870	21,522,537	16,281,016	281,976
Total utility plant		<u>58,789,864</u>	<u>1,441,387</u>	<u>63,409,322</u>	<u>5,549,384</u>	<u>129,189,956</u>	<u>127,639,764</u>	<u>127,921,740</u>
TOTAL ASSETS		<u>79,767,184</u>	<u>(2,166,835)</u>	<u>88,167,083</u>	<u>16,155,140</u>	<u>181,922,572</u>	<u>175,990,537</u>	<u>181,497,342</u>
CURRENT LIABILITIES:								
Accounts payable		342,448	23,493	36,628	1,761,012	2,163,581	2,488,628	2,488,628
Accrued expenses		4,498	0	60,476	775,064	840,039	1,194,589	1,194,589
Customer deposits		327,618	9,920			337,538	372,592	372,592
Current portion of long-term debt		14,672	7,900	666,139		688,711	668,353	240,000
Total current liabilities		<u>689,236</u>	<u>41,313</u>	<u>763,244</u>	<u>2,536,076</u>	<u>4,029,869</u>	<u>4,724,162</u>	<u>4,964,162</u>
LONG-TERM DEBT:								
Notes payable		234,981		7,781,666		8,016,646	8,654,239	8,654,239
Special assessment bonds				66,000		66,000	82,000	4,740,000
Certificates of participation-								
1994 refunding/USDA-certificates			245,901			245,901	253,401	253,401
Total		<u>234,981</u>	<u>245,901</u>	<u>7,847,666</u>	<u>0</u>	<u>8,328,547</u>	<u>8,989,640</u>	<u>13,729,640</u>
Less current portion		(14,672)	(7,900)	(666,139)		(688,711)	(668,353)	(240,000)
Total long-term debt		<u>220,309</u>	<u>238,001</u>	<u>7,181,527</u>	<u>0</u>	<u>7,639,836</u>	<u>8,321,287</u>	<u>12,821,287</u>
OTHER LIABILITIES:								
Net Pension Liability					6,994,867	6,994,867	6,994,867	6,994,867
Deferred inflows/outflows GASB 68					(1,685,622)	(1,685,622)	(1,685,622)	(1,685,622)
Interest payable from restricted assets			3,688	3,350		7,038	7,971	81,397
Funds held in trust		35,359		2,780		38,139	38,139	38,139
Advance construction deposits		66,001		3,062,862	0	3,128,863	3,326,863	3,326,863
Total other liabilities		<u>101,360</u>	<u>3,688</u>	<u>3,068,991</u>	<u>5,309,245</u>	<u>8,483,284</u>	<u>8,682,218</u>	<u>8,763,614</u>
TOTAL LIABILITIES		<u>1,010,905</u>	<u>283,001</u>	<u>11,013,762</u>	<u>7,845,321</u>	<u>20,152,989</u>	<u>21,727,666</u>	<u>26,549,063</u>
NET ASSETS:								
Retained earnings-								
Invested in capital assets, net of debt		48,108,423	1,494,884	56,704,265	5,051,175	111,358,748	111,358,748	111,358,748
Reserved, debt service and other		18,635,576	253,401	15,421,991	5,904,095	40,215,063	40,215,063	685,408
Unrestricted		<u>7,186,270</u>	<u>(4,036,232)</u>	<u>2,706,888</u>	<u>(3,167,866)</u>	<u>2,689,060</u>	<u>2,689,060</u>	<u>2,689,060</u>
Total retained earnings		<u>73,930,270</u>	<u>(2,287,947)</u>	<u>74,833,145</u>	<u>7,787,404</u>	<u>154,262,871</u>	<u>154,262,871</u>	<u>154,948,279</u>
Increases(decreases) 2016-2017:								
Water fund "DHS"-see SCHEDULE B		4,826,010				4,826,010		0
Water fund "IDE"-see SCHEDULE C			(161,889)			(161,889)		0
Sewer fund-see SCHEDULE D				2,320,177		2,320,177		0
General fund-see SCHEDULE E					522,416	522,416		0
Total net assets		<u>78,756,279</u>	<u>(2,449,837)</u>	<u>77,153,322</u>	<u>8,309,820</u>	<u>161,769,584</u>	<u>154,262,871</u>	<u>154,948,279</u>
TOTAL LIABILITIES AND NET ASSETS		<u>79,767,184</u>	<u>(2,166,835)</u>	<u>88,167,083</u>	<u>16,155,140</u>	<u>181,922,572</u>	<u>175,990,537</u>	<u>181,497,342</u>

MISSION SPRINGS WATER DISTRICT
COMBINED FUNDS
INCOME STATEMENT
JULY 1, 2020 TO MAY 31, 2021

	YEAR TO DATE					2020-2021 ADOPTED BUDGET		
	CURRENT MONTH			FAVORABLE (UNFAVORABLE) VARIANCE AMOUNT	FAVORABLE (UNFAVORABLE) VARIANCE PERCENT	TOTAL	REMAINING BUDGET	
	ACTUAL	ACTUAL	BUDGET				AMOUNT	PERCENT
OPERATING REVENUE:								
Water fund	1,261,026	12,591,788	13,519,643	(927,855)	-7%	12,732,767	140,979	1%
Sewer fund	645,837	6,900,424	6,497,056	403,368	6%	6,766,200	(134,224)	-2%
General fund	0	0	0	0	0%	0	0	0%
TOTAL OPERATING REVENUE	1,906,863	19,492,212	20,016,699	(524,487)	-3%	19,498,967	6,755	
OPERATING EXPENSE:								
Water fund	3,546,239	9,074,101	11,078,429	2,004,328	18%	12,016,764	2,942,663	24%
Sewer fund	477,011	5,185,195	5,068,652	(116,544)	-2%	5,498,069	312,874	6%
General fund-Net Operating Expense	0	0	0	0	0%	0	0	0%
TOTAL OPERATING EXPENSE	4,023,251	14,259,297	16,147,080	1,887,784	12%	17,514,833	3,255,536	19%
NET OPERATING INCOME(LOSS)	(2,116,387)	5,232,915	3,869,619	1,363,297		1,984,134	(3,248,781)	
ADD NON-OPERATING REVENUE								
Water fund	160,602	1,170,716	2,414,890	(1,244,174)	-52%	2,594,482	1,423,766	55%
Sewer fund	134,191	1,138,337	8,851,378	(7,713,041)	-87%	9,655,267	8,516,930	88%
General fund	51,263	522,416	677,243	(154,827)	-23%	738,810	216,394	29%
TOTAL NON-OPERATING REVENUE	346,056	2,831,469	11,943,511	(9,112,042)	-76%	12,988,559	10,157,090	
LESS NON-OPERATING EXPENSE								
Water fund	2,433	24,283	28,916	4,633	16%	30,905	6,622	21%
Sewer fund	48,460	533,389	528,627	(4,762)	-1%	576,684	43,295	8%
General fund - P.E.R.S. Prior Year Costs	0	0	151,044	151,044	100%	453,134	453,134	100%
TOTAL NON-OPERATING EXPENSE	50,893	557,672	708,587	150,915	21%	1,060,723	503,051	
NET NON-OPERATING INCOME(LOSS)	295,162	2,273,797	11,234,924	(8,961,127)		11,927,836	9,654,039	
NET INCOME(LOSS)	(1,821,225)	7,506,713	15,104,543	(7,597,830)	-50%	13,911,970	6,405,257	46%

MISSION SPRINGS WATER DISTRICT
 COMBINED STATEMENT OF CASH FLOWS
 EXCLUDING ASSESSMENT DISTRICT #13
 FOR THE PERIOD
 JULY 1, 2020 TO MAY 31, 2021

	2021				YEAR ENDING JUNE 30, 2020
	WATER	SEWER	GENERAL	COMBINED	COMBINED
CASH FLOWS FROM OPERATING ACTIVITIES:					
Net operating income (loss)	3,517,687	1,715,228	0	5,232,915	814,474
Add (deduct) items not affecting cash in the year:					
Depreciation	1,914,465	1,542,203	234,661	3,691,329	4,002,490
Amortization	1,320	0		1,320	1,440
Increase) Decrease in accounts receivable	(625,439)	523,604	0	(101,836)	(128,097)
Increase) Decrease in assessments receivable	0	841,997	0	841,997	743,471
Increase) Decrease in taxes receivable	156,288	122,205	154,844	433,337	(9,168)
Increase) Decrease in reimbursable job deposits	7,908	(38,714)	8,802	(22,003)	78,090
Increase) Decrease in inventory			(1,302,183)	(1,302,183)	45,535
Increase) Decrease in prepaid expenses			114,522	114,522	17,379
Increase (Decrease) in construction deposits	0	0	(198,000)	(198,000)	(152,000)
Increase (Decrease) in customer deposits	(35,054)	0	0	(35,054)	19,460
Increase (Decrease) in accounts payable	356,931	33,700	(715,678)	(325,047)	1,483,284
Increase (Decrease) in accrued liabilities	2,591	(26,026)	(332,049)	(355,484)	(170,207)
Increase (Decrease) in P.E.R.S. Prior Year Expenses	0	0	0	0	(375,341)
Increase (Decrease) in Pension Expense GASB 68	0	0	0	0	-
Increase (Decrease) in Net Pension Liability	0	0	0	0	(416,287)
Increase (Decrease) in deferred inflows/outflows	0	0	0	0	(70,943)
Net cash provided by (used by) operating activities	<u>5,296,699</u>	<u>4,714,197</u>	<u>(2,035,081)</u>	<u>7,975,814</u>	<u>5,883,582</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:					
Backup and front footage fees	509,263	157,100	0	666,363	603,235
Property taxes	562,106	330,662	482,873	1,375,640	2,125,684
Other	(2,269)	(4,762)	0	(7,031)	(15,097)
Grants	9,473	0	0	9,473	118,248
Net cash provided by noncapital financing activities	<u>1,078,572</u>	<u>483,000</u>	<u>482,873</u>	<u>2,044,445</u>	<u>2,832,069</u>
CASH FLOWS FROM INVESTING ACTIVITIES:					
Net Additions to utility plant	(3,784,086)	(1,319,415)	(138,020)	(5,241,521)	(3,764,709)
Contributed assets	0	0	0	0	292,566
Proceeds from asset disposals - net	48,230	0	1,438	49,667	(12,344)
Insurance refund - prior years	0	0	0	0	(1,500)
Interest income	66,871	681,450	59,021	807,343	1,407,169
Investment income/(loss)	(25,226)	(30,875)	(20,916)	(77,016)	388,946
Net cash (used) by investing activities	<u>(3,694,211)</u>	<u>(668,840)</u>	<u>(98,477)</u>	<u>(4,461,527)</u>	<u>(1,689,871)</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:					
Cost of issuance-amortized	(1,320)	0	0	(1,320)	(1,440)
Long-term debt retired	(14,611)	(646,482)	0	(661,093)	(629,974)
Long-term debt issued	0	0	0	0	-
Interest expense	(20,694)	(528,627)	0	(549,321)	(665,441)
Net cash provided by (used by) financing activities	<u>(36,625)</u>	<u>(1,175,109)</u>	<u>0</u>	<u>(1,211,734)</u>	<u>(1,296,855)</u>
INCREASE (DECREASE) IN CASH	2,644,436	3,353,248	(1,650,685)	4,346,997	5,728,925
BALANCE OF CASH AT BEGINNING OF YEAR	<u>11,106,971</u>	<u>13,130,503</u>	<u>10,470,772</u>	<u>34,708,247</u>	<u>29,232,630</u>
BALANCE OF CASH AT MAY 31, 2021 (Schedule F)	<u>13,751,407</u>	<u>16,483,751</u>	<u>8,820,087</u>	<u>39,055,244</u>	<u>34,961,554</u>

MISSION SPRINGS WATER DISTRICT
 WATER FUND "DHS"
 INCOME STATEMENT
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE B

SEE SCH	CURRENT MONTH			YEAR TO DATE				PERCENT USED OF YEAR TO DATE	2020-2021 ADOPTED BUDGET		
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	TOTAL		REMAINING	92%	
			(UNFAVORABLE) VARIANCE			(UNFAVORABLE) VARIANCE AMOUNT					USED
OPERATING REVENUE	1	1,239,360	1,213,042	26,318	12,355,915	13,345,980	(990,065)	93%	12,543,317	187,402	99%
OPERATING EXPENSE:											
Pumping-											
Salaries and wages		26,304	30,694	4,390	320,462	337,634	17,172	95%	368,328	47,866	87%
Benefit pay	5	4,067	7,007	2,940	71,240	77,077	5,837	92%	84,084	12,844	85%
Fringe benefits	4	12,185	19,371	7,186	210,848	213,081	2,233	99%	232,452	21,604	91%
Electric utility		65,500	68,150	2,650	1,078,294	749,650	(328,644)	144%	817,800	(260,494)	132%
Materials and services		34,615	33,062	(1,553)	350,595	400,987	50,392	87%	441,499	90,904	79%
Total		142,670	158,284	15,614	2,031,440	1,778,429	(253,011)	114%	1,944,163	(87,277)	104%
Transmission and distribution-											
Salaries and wages		47,814	39,168	(8,646)	500,915	430,848	(70,067)	116%	470,016	(30,899)	107%
Benefit pay	5	8,111	10,619	2,508	126,645	116,809	(9,836)	108%	127,428	783	99%
Fringe benefits	4	22,437	27,392	4,955	335,924	301,312	(34,612)	111%	328,704	(7,220)	102%
Materials and services		2,762,909	28,593	(2,734,316)	(857,121)	501,579	1,358,700	-171%	537,689	1,394,810	-159%
Total		2,841,270	105,772	(2,735,498)	106,362	1,350,548	1,244,186	8%	1,463,837	1,357,475	7%
Customer accounts-											
Salaries and wages		21,018	42,102	21,084	238,836	463,122	224,286	52%	505,224	266,388	47%
Benefit pay	5	3,361	11,500	8,139	53,500	126,500	73,000	42%	138,000	84,500	39%
Fringe benefits	4	9,781	30,348	20,567	155,666	333,828	178,162	47%	364,176	208,510	43%
Materials and services		500	(19,450)	(19,950)	8,065	156,230	148,165	100%	156,230	148,165	5%
Total		34,660	64,500	29,840	456,067	1,079,680	623,613	42%	1,163,630	707,563	39%
Other operating-											
Standby salaries and wages		6,997	9,265	2,268	85,017	101,915	16,898	83%	111,180	26,163	76%
Standby reports		0	1,100	1,100	11,073	12,100	1,027	92%	13,200	2,127	84%
Consulting engineer		13,952	3,500	(10,452)	41,785	67,800	26,015	62%	93,750	51,965	45%
Depreciation		168,104	173,284	5,180	1,856,557	1,913,538	56,981	97%	2,086,823	230,266	89%
Administrative costs	E	307,701	362,198	54,497	4,090,450	4,124,779	34,329	99%	4,435,806	345,356	92%
TOTAL OPERATING EXPENSE		3,515,354	877,903	(2,637,451)	8,678,750	10,428,789	1,750,039	83%	11,312,389	2,633,639	77%
NET OPERATING INCOME(LOSS)		(2,275,993)	335,139	(2,611,133)	3,677,165	2,917,191	759,974		1,230,928	(2,446,237)	
ADD NON-OPERATING REVENUE	1	162,037	221,040	(59,003)	1,161,011	2,431,460	(1,270,449)	48%	2,652,498	1,491,487	44%
Total		(2,113,957)	556,179	(2,670,136)	4,838,175	5,348,651	(510,476)		3,883,426	(954,749)	
LESS NON-OPERATING EXPENSE	1	1,391	5,947	4,556	12,166	16,854	4,688	72%	17,801	5,635	6
NET INCOME(LOSS)	A	(2,115,348)	550,232	(2,665,580)	4,826,010	5,331,797	(505,787)	-91%	3,865,625	(960,385)	125%

MISSION SPRINGS WATER DISTRICT
WATER FUND "DHS"
OPERATING REVENUE, NON-OPERATING REVENUE AND EXPENSE
JULY 1, 2020 TO MAY 31, 2021

SCHEDULE 1

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021		
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	TOTAL	REMAINING	92%
			(UNFAVORABLE)			(UNFAVORABLE)	OF YEAR TO			
			VARIANCE			VARIANCE	DATE		AMOUNT	
OPERATING REVENUE:										
Water service charge-residential	215,015	219,117	(4,102)	2,202,967	2,410,281	(207,314)	91%	2,414,700	211,733	91%
Water service charge-commercial	17,996	19,654	(1,658)	186,342	216,194	(29,852)	86%	216,924	30,582	86%
Water service charge-landscape	6,862	7,735	(873)	70,894	85,085	(14,191)	83%	85,410	14,516	83%
Water service charge-construction	1,350	1,190	160	13,470	13,090	380	103%	13,140	(330)	103%
Water consumption-residential	570,879	624,906	(54,027)	5,855,035	6,873,973	(1,018,938)	85%	6,249,439	394,404	94%
Water consumption-commercial	88,903	80,758	8,145	850,050	888,332	(38,282)	96%	809,544	(40,506)	105%
Water consumption-landscape	126,534	173,834	(47,300)	1,357,341	1,912,168	(554,827)	71%	1,743,000	385,659	78%
Water consumption-construction	19,853	11,175	8,678	273,975	122,925	151,050	223%	112,050	(161,925)	245%
Drought surcharge fees	0	0	0	0	0	0	0%	0	0	0%
Reconnect/disconnect fees	1,390	12,500	(11,110)	18,620	137,500	(118,880)	14%	150,000	131,380	12%
New meter installations	28,274	1,140	27,134	95,318	12,540	82,778	760%	13,680	(81,638)	697%
Temporary const. meter installations	140	0	140	2,270	0	2,270	#DIV/0!	0	(2,270)	#DIV/0!
Backflow device maintenance fees	8,675	7,500	1,175	87,127	82,500	4,627	106%	90,000	2,873	97%
R.P. & double check installations	0	0	0	1,515	2,525	(1,010)	60%	3,030	1,515	50%
Fire flow charges	12,175	8,333	3,842	149,900	91,667	58,233	164%	100,000	(49,900)	150%
Fire flow tests	5,157	300	4,857	18,145	3,300	14,845	550%	3,600	(14,545)	504%
Unauthorized water use penalties	0	150	(150)	0	1,650	(1,650)	0%	1,800	1,800	0%
Returned check service charges	475	50	425	6,440	550	5,890	1171%	600	(5,840)	1073%
Site rental - microwave station	8,246	6,200	2,046	66,043	68,200	(2,157)	97%	74,400	8,357	89%
Delinquent charges	106,883	18,750	88,133	873,877	206,250	667,627	424%	225,000	(648,877)	388%
Standby maintenance fees	19,500	19,500	0	214,500	214,500	0	100%	234,000	19,500	92%
Lien recordation/release fees	1,052	250	802	12,087	2,750	9,337	440%	3,000	(9,087)	403%
Total	1,239,360	1,213,042	26,318	12,355,915	13,345,980	(990,065)	93%	12,543,317	187,402	99%
NON-OPERATING INCOME:										
Capacity fees	97,247	41,666	55,581	509,263	458,334	50,929	111%	500,000	(9,263)	102%
Front footage charges	0	0	0	0	0	0	0%	0	0	0%
Annexation fees	0	0	0	0	0	0	0%	0	0	0%
Interest income	4,053	17,222	(13,169)	88,547	189,442	(100,895)	47%	206,664	118,117	43%
Investment income/(loss)	11,664	16,737	(5,073)	(34,304)	184,107	(218,411)	-19%	200,844	235,148	-17%
Property taxes	49,073	49,072	1	539,802	539,805	(3)	100%	588,875	49,073	92%
Grants	0	96,343	(96,343)	9,473	1,059,772	(1,050,299)	0%	1,156,115	1,146,642	0%
Contributed revenue	0	0	0	0	0	0	0%	0	0	0%
Gain(loss) asset disposals	0	0	0	48,230	0	48,230	0%	0	(48,230)	0%
Total	162,037	221,040	(59,003)	1,161,011	2,431,460	(1,270,449)	48%	2,652,498	1,491,487	44%
NON-OPERATING EXPENSE:										
Interest	940	879	(61)	10,354	8,646	(1,708)	120%	9,525	(829)	109%
County administrative charges	671	0	(671)	7,932	0	(7,932)	#DIV/0!	0	(7,932)	#DIV/0!
Trustee fees C.O.P.'s	0	0	0	0	0	0	0%	0	0	0%
Amortization of C.O.P. discount	0	0	0	0	0	0	0%	0	0	0%
Amortization of C.O.P. issuance costs	18	18	0	198	198	0	100%	216	18	92%
Uncollectable Accounts	(238)	5,050	5,288	(6,319)	8,010	14,329	-79%	8,060	14,379	-78%
Prior year (income) expense	0	0	0	0	0	0	0%	0	0	0%
Total	1,391	5,947	4,556	12,166	16,854	4,688	72%	17,801	5,635	68%

MISSION SPRINGS WATER DISTRICT
 WATER FUND "IDE"
 INCOME STATEMENT
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE C

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021			
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	TOTAL	REMAINING	92%	
			(UNFAVORABLE) VARIANCE			(UNFAVORABLE) VARIANCE AMOUNT					OF YEAR TO BUDGET
OPERATING REVENUE	2	21,666	15,787	5,879	235,873	173,663	62,210	136%	189,450	(46,423)	125%
OPERATING EXPENSE:											
Pumping-											
Salaries and wages		2,766	1,960	(806)	25,859	21,560	(4,299)	120%	23,520	(2,339)	110%
Benefit pay	5	411	447	36	4,845	4,917	72	99%	5,364	519	90%
Fringe benefits	4	1,275	1,236	(39)	15,436	13,596	(1,840)	114%	14,832	(604)	104%
Electric utility		4,200	4,171	(29)	50,165	45,876	(4,289)	109%	50,047	(118)	100%
Materials and services		7,138	9,849	2,711	84,894	99,338	14,444	85%	108,437	23,543	78%
Total		15,790	17,663	1,873	181,198	185,287	4,089	98%	202,200	21,002	90%
Transmission and distribution-											
Salaries and wages		320	2,500	2,180	13,437	27,500	14,063	49%	30,000	16,563	45%
Benefit pay	5	45	678	633	2,781	7,458	4,677	37%	8,136	5,355	34%
Fringe benefits	4	146	1,748	1,602	8,222	19,228	11,006	43%	20,976	12,754	39%
Materials and services		0	2,031	2,031	0	24,541	24,541	0%	26,455	26,455	0%
Total		511	6,957	6,446	24,439	78,727	54,288	31%	85,567	61,128	29%
Customer accounts-											
Salaries and wages		0	2,647	2,647	147	29,117	28,970	1%	31,764	31,617	0%
Benefit pay	5	0	725	725	39	7,975	7,936	0%	8,700	8,661	0%
Fringe benefits	4	0	1,909	1,909	89	20,999	20,910	0%	22,908	22,819	0%
Materials and services		0	0	0	0	0	0	0%	0	0	0%
Total		0	5,281	5,281	275	58,091	57,816	0%	63,372	63,097	0%
Other operating-											
Standby salaries and wages		0	591	591	0	6,501	6,501	0%	7,092	7,092	0%
Standby reports		0	25	25	295	275	(20)	107%	300	5	98%
Consulting engineer		0	0	0	0	0	0	0%	0	0	0%
Depreciation		5,264	5,265	1	57,909	57,908	(1)	100%	63,173	5,264	92%
Administrative costs	E	9,320	23,081	13,761	131,235	262,851	131,616	50%	282,671	151,436	46%
TOTAL OPERATING EXPENSE		30,886	58,863	27,977	395,351	649,640	254,289	61%	704,375	309,024	56%
NET OPERATING INCOME(LOSS)		(9,219)	(43,076)	(33,857)	(159,478)	(475,977)	(316,499)	34%	(514,925)	(355,447)	31%
ADD NON-OPERATING REVENUE	2	(1,434)	(5,196)	3,762	9,706	(16,570)	26,276	-59%	(58,016)	(67,722)	-17%
Total		(10,654)	(48,272)	37,618	(149,772)	(492,547)	342,775	30%	(572,941)	(423,169)	26%
LESS NON-OPERATING EXPENSE	2	1,042	1,642	600	12,118	12,062	(56)	100%	13,104	986	92%
NET INCOME(LOSS)	A	(11,696)	(49,914)	38,218	(161,889)	(504,609)	342,719	32%	(586,045)	(424,156)	28%

MISSION SPRINGS WATER DISTRICT
 WATER FUND "IDE"
 OPERATING REVENUE, NON-OPERATING REVENUE AND EXPENSE
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE 2

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021		
	ACTUAL	BUDGET	FAVORABLE (UNFAVORABLE) VARIANCE	ACTUAL	BUDGET	FAVORABLE (UNFAVORABLE) VARIANCE AMOUNT	PERCENT USED OF YEAR TO DATE BUDGET	TOTAL	REMAINING AMOUNT	92% USED
OPERATING REVENUE:										
Water service charge-residential	7,158	5,000	2,158	66,388	55,000	11,388	121%	60,000	(6,388)	111%
Water service charge-commercial	306	100	206	1,937	1,100	837	176%	1,200	(737)	161%
Water service charge-landscape	16	0	16	156	0	156	0%	0	(156)	0%
Water service charge-construction	0	0	0	0	0	0	0%	0	0	0%
Water consumption-residential	9,685	8,312	1,373	118,119	91,438	26,681	129%	99,750	(18,369)	118%
Water consumption-commercial	0	100	(100)	11	1,100	(1,089)	1%	1,200	1,189	1%
Water consumption-landscape	0	0	0	0	0	0	0%	0	0	0%
Water consumption-construction	0	0	0	0	0	0	0%	0	0	0%
Drought surcharge fees	0	0	0	0	0	0	0%	0	0	0%
Reconnect/disconnect fees	250	100	150	350	1,100	(750)	32%	1,200	850	29%
New meter installations	0	0	0	0	0	0	0%	0	0	#DIV/0!
Temporary const. meter installations	0	0	0	0	0	0	0%	0	0	0%
Backflow device maintenance fees	152	75	77	1,306	825	481	158%	900	(406)	145%
R.P. & double check installations	0	0	0	0	0	0	0%	0	0	0%
Fire flow charges	206	100	106	1,932	1,100	832	176%	1,200	(732)	161%
Fire flow tests	0	0	0	0	0	0	#DIV/0!	0	0	#DIV/0!
Unauthorized water use penalties	0	0	0	0	0	0	0%	0	0	0%
Returned check service charges	100	0	100	350	0	350	#DIV/0!	0	(350)	#DIV/0!
Certified meter test fees	0	0	0	0	0	0	0%	0	0	0%
Delinquent charges	2,795	1,000	1,795	33,245	11,000	22,245	302%	12,000	(21,245)	277%
Standby maintenance fees	1,000	1,000	0	11,000	11,000	0	100%	12,000	1,000	92%
Lien recordation/release fees	0	0	0	1,078	0	1,078	0%	0	(1,078)	0%
Total	21,666	15,787	5,879	235,873	173,663	62,210	136%	189,450	(46,423)	125%
NON-OPERATING INCOME:										
Capacity fees	0	0	0	0	4,353	(4,353)	0%	4,353	4,353	0%
Front footage charges	0	0	0	0	0	0	0%	0	0	0%
Annexation fees	0	0	0	0	0	0	0%	0	0	0%
Interest income	(893)	(3,600)	2,707	(21,676)	(39,600)	17,924	55%	(43,200)	(21,524)	50%
Investment income/(loss)	(2,569)	(3,625)	1,056	9,079	(3,625)	12,704	-250%	(43,500)	(52,579)	-21%
Property taxes	2,028	2,029	(1)	22,303	22,302	1	100%	24,331	2,028	92%
Grants	0	0	0	0	0	0	0%	0	0	0%
Contributed revenue	0	0	0	0	0	0	0%	0	0	0%
Gain(loss) asset disposals	0	0	0	0	0	0	0%	0	0	0%
Total	(1,434)	(5,196)	3,762	9,706	(16,570)	26,276	-59%	(58,016)	(67,722)	-17%
NON-OPERATING EXPENSE:										
Interest	940	940	0	10,340	10,340	0	100%	11,280	940	92%
County administrative charges	0	0	0	0	0	0	#DIV/0!	0	0	#DIV/0!
Amortization of C.O.P. issuance costs	102	102	0	1,122	1,122	0	100%	1,224	102	92%
Uncollectable Accounts	0	600	600	656	600	(56)	109%	600	(56)	109%
Prior year (income) expense	0	0	0	0	0	0	0%	0	0	0%
Total	1,042	1,642	600	12,118	12,062	(56)	100%	13,104	986	92%

MISSION SPRINGS WATER DISTRICT
SEWER FUND
INCOME STATEMENT
JULY 1, 2020 TO MAY 31, 2021

SCHEDULE D

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021			
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	ADOPTED BUDGET		92% USED	
			(UNFAVORABLE) VARIANCE			(UNFAVOR) VARIANCE AMOUNT		OF YEAR TO DATE BUDGET	TOTAL		REMAINING AMOUNT
OPERATING REVENUE	3	645,837	590,642	55,195	6,900,424	6,497,056	403,368	106%	6,766,200	(134,224)	102%
OPERATING EXPENSE:											
Collection-											
Salaries and wages		11,544	11,395	(149)	96,959	125,345	28,386	77%	136,740	39,781	71%
Benefit pay	5	1,919	3,016	1,097	25,562	33,176	7,614	77%	36,192	10,630	71%
Fringe benefits	4	5,401	7,833	2,432	62,559	86,163	23,604	73%	93,996	31,437	67%
Materials and services		5,160	13,582	8,422	79,693	149,362	69,669	53%	141,510	61,817	56%
Total		24,023	35,826	11,803	264,773	394,046	129,273	67%	408,438	143,665	65%
Treatment-											
Salaries and wages		42,173	39,921	(2,252)	479,144	439,131	(40,013)	109%	479,052	(92)	100%
Benefit pay	5	9,020	8,109	(911)	92,975	89,199	(3,776)	104%	97,308	4,333	96%
Fringe benefits	4	20,538	25,389	4,851	306,954	279,279	(27,675)	110%	304,668	(2,286)	101%
Electric utility		16,850	16,549	(301)	221,597	182,038	(39,559)	122%	198,587	(23,010)	112%
Materials and services		36,955	50,056	13,101	542,338	599,820	57,482	90%	668,959	126,621	81%
Total		125,536	140,024	14,488	1,643,009	1,589,467	(53,542)	103%	1,748,574	105,565	94%
Other operating-											
Standby salaries and wages		6,680	6,073	(607)	71,976	66,803	(5,173)	108%	72,876	900	99%
Standby reports		0	150	150	3,396	3,250	(146)	104%	3,400	4	100%
Depreciation		140,193	131,048	(9,145)	1,542,203	1,441,608	(100,595)	107%	1,572,656	30,453	98%
Administrative costs	E	180,579	138,167	(42,412)	1,659,840	1,573,478	(86,362)	105%	1,692,125	32,285	98%
TOTAL OPERATING EXPENSE		477,011	451,288	(25,723)	5,185,195	5,068,652	(116,544)	102%	5,498,069	312,874	94%
NET OPERATING INCOME(LOSS)		168,826	139,354	80,918	1,715,228	1,428,404	286,824	120%	1,268,131	(447,097)	135%
ADD NON-OPERATING REVENUE	3	134,191	803,388	(669,197)	1,138,337	8,851,378	(7,713,041)	13%	9,655,267	8,516,930	12%
Total		303,016	942,742	(639,725)	2,853,566	10,279,782	(7,426,217)	28%	10,923,398	8,069,832	26%
LESS NON-OPERATING EXPENSE	3	48,460	48,057	403	533,389	528,627	(4,762)	101%	576,684	43,295	92%
NET INCOME(LOSS)	A	254,556	894,685	(640,129)	2,320,177	9,751,155	(7,430,978)	24%	10,346,714	8,026,537	22%

MISSION SPRINGS WATER DISTRICT
SEWER FUND
OPERATING REVENUE, NON-OPERATING REVENUE AND EXPENSE
JULY 1, 2020 TO MAY 31, 2021

SCHEDULE 3

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021		
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	TOTAL	REMAINING	92%
			(UNFAVORABLE)			(UNFAVORABLE)				
			VARIANCE			VARIANCE	DATE		AMOUNT	
						AMOUNT	BUDGET			
OPERATING REVENUE:										
	561,332	531,667	29,665	6,105,676	5,848,331	257,345	104%	6,090,000	(15,676)	100%
	83,280	57,750	25,530	780,308	635,250	145,058	123%	661,500	(118,808)	118%
	300	300	0	4,264	3,300	964	129%	3,600	(664)	118%
	925	925	0	10,175	10,175	0	100%	11,100	925	92%
D	<u>645,837</u>	<u>590,642</u>	<u>55,195</u>	<u>6,900,424</u>	<u>6,497,056</u>	<u>403,368</u>	<u>106%</u>	<u>6,766,200</u>	<u>(134,224)</u>	<u>102%</u>
NON-OPERATING REVENUE:										
	37,800	0	37,800	157,100	12,600	144,500	1247%	12,600	(144,500)	1247%
	0	0	0	0	0	0	0%	0	0	0%
	0	0	0	0	0	0	0%	0	0	0%
	58,446	66,324	(7,878)	681,450	731,064	(49,614)	93%	797,889	116,439	85%
	7,884	12,838	(4,954)	(30,875)	141,218	(172,093)	-22%	154,056	184,931	-20%
	30,060	30,059	1	330,662	330,663	(1)	100%	360,722	30,060	92%
	0	694,167	(694,167)	0	7,635,833	(7,635,833)	0%	8,330,000	8,330,000	0%
	0	0	0	0	0	0	0%	0	0	0%
	0	0	0	0	0	0	0%	0	0	0%
D	<u>134,191</u>	<u>803,388</u>	<u>(669,197)</u>	<u>1,138,337</u>	<u>8,851,378</u>	<u>(7,713,041)</u>	<u>13%</u>	<u>9,655,267</u>	<u>8,516,930</u>	<u>12%</u>
NON-OPERATING EXPENSE:										
	48,057	48,057	0	528,627	528,627	0	100%	576,684	48,057	92%
	403	0	(403)	4,762	0	(4,762)	0%	0	(4,762)	0%
	0	0	0	0	0	0	0%	0	0	0%
	0	0	0	0	0	0	0%	0	0	0%
	0	0	0	0	0	0	0%	0	0	0%
	0	0	0	0	0	0	0%	0	0	0%
D	<u>48,460</u>	<u>48,057</u>	<u>(403)</u>	<u>533,389</u>	<u>528,627</u>	<u>(4,762)</u>	<u>101%</u>	<u>576,684</u>	<u>43,295</u>	<u>92%</u>

MISSION SPRINGS WATER DISTRICT
 GENERAL FUND INCOME STATEMENT
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE E, page 1 of 2

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021			
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	TOTAL	REMAINING	92%	
			(UNFAVORABLE)			(UNFAVOR)					OF YEAR TO
			VARIANCE			AMOUNT	BUDGET	AMOUNT	USED		
REVENUES & EXPENSES NOT SUBJECT TO FUND TRANSFER:											
Property taxes	43,898	43,897	1	482,873	482,873	(1)	100%	526,770	43,898	92%	
Interest income	2,879	10,350	(7,471)	59,021	113,850	(54,829)	52%	124,200	65,179	48%	
Investment income/(loss)	4,486	7,320	(2,834)	(20,916)	80,520	(101,436)	-26%	87,840	108,756	-24%	
P.E.R.S. prior year costs	0	(37,761)	37,761	0	(151,044)	151,044	0%	(453,134)	(453,134)	0%	
Pension Inflows/Outflows GASB 68	0	0	0	0	0	0	0%	0	0	0%	
Prior year costs	0	0	0	0	0	0	0%	0	0	0%	
Gain (Loss) on sale of assets	0	0	0	1,438	0	1,438	0%	0	(1,438)	0%	
Total revenues	51,263	23,806	27,457	522,416	526,199	(3,783)	99%	285,676	(236,740)	183%	
GENERAL OPERATING EXPENSE:											
Customer accounts-											
Salaries and wages	26,386	3,733	(22,653)	291,616	41,063	(250,553)	710%	44,796	(246,820)	651%	
Benefit pay	5	4,356	925	(3,431)	69,490	10,175	(59,315)	683%	11,100	(58,390)	626%
Fringe benefits	4	12,333	2,638	(9,695)	193,267	29,018	(164,249)	666%	31,656	(161,611)	611%
Materials and services		13,888	12,075	(1,813)	124,103	130,545	6,442	95%	151,617	27,514	82%
Total	56,964	19,371	(37,593)	678,476	210,801	(467,675)	322%	239,169	(439,307)	284%	
Buildings and grounds-											
Salaries and wages		516	969	453	4,793	10,659	5,866	45%	11,628	6,835	41%
Benefit pay	5	50	157	107	502	1,727	1,225	29%	1,884	1,382	27%
Fringe benefits	4	227	637	410	2,719	7,007	4,288	39%	7,644	4,925	36%
Materials and services		4,519	22,888	18,369	74,148	151,668	77,520	49%	164,456	90,308	45%
Total	5,312	24,651	19,339	82,162	171,061	88,899	48%	185,612	103,450	44%	
Vehicle maintenance-											
Salaries and wages		1,078	1,453	375	14,623	15,983	1,360	91%	17,436	2,813	84%
Benefit pay	5	105	235	130	1,552	2,585	1,033	60%	2,820	1,268	55%
Fringe benefits	4	474	956	482	8,858	10,516	1,658	84%	11,472	2,614	77%
Materials and services		25,868	31,059	5,191	360,375	386,649	26,274	93%	417,278	56,903	86%
Total	27,524	33,703	6,179	385,409	415,733	30,324	93%	449,006	63,597	86%	
Administration-											
Salaries and wages		81,912	77,478	(4,434)	984,499	852,258	(132,241)	116%	891,274	(93,225)	110%
Benefit pay	5	7,179	9,262	2,083	125,336	101,882	(23,454)	123%	111,148	(14,188)	113%
Fringe benefits	4	35,136	46,461	11,325	605,968	511,071	(94,897)	119%	557,542	(48,426)	109%
Materials and services		29,527	73,900	44,373	536,436	870,970	334,534	62%	943,997	407,561	57%
Total	153,755	207,101	53,346	2,252,239	2,336,181	83,942	96%	2,503,961	251,722	90%	
Board of directors-											
Salaries and wages (staff)		217	4,492	4,275	1,737	49,412	47,675	4%	53,904	52,167	3%
Benefit pay (staff)	5	40	922	882	413	10,142	9,729	4%	11,064	10,651	4%
Fringe benefits (staff)	4	103	3,065	2,962	1,111	33,715	32,604	3%	36,780	35,669	3%
Directors fees		2,600	5,000	2,400	26,600	55,000	28,400	48%	60,000	33,400	44%
Group insurance		8,218	9,500	1,282	89,724	104,500	14,776	86%	114,000	24,276	79%
Materials and services		14,989	4,100	(10,889)	13,024	83,600	70,576	16%	86,900	73,876	15%
Total	26,166	27,079	913	132,609	336,369	203,760	39%	362,648	230,039	37%	

MISSION SPRINGS WATER DISTRICT - GENERAL FUND INCOME STATEMENT SCHEDULE E, Page 2 of 2

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021			
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	ADOPTED BUDGET		92%	
			(UNFAVORABLE) VARIANCE			(UNFAVORABLE) VARIANCE		OF YEAR TO DATE	REMAINING AMOUNT		AMOUNT USED
GENERAL OPERATING EXPENSE:											
Public affairs-											
	Salaries and wages	5,407	4,250	(1,157)	55,608	46,750	(8,858)	119%	51,000	(4,608)	109%
5	Benefit pay	816	684	(132)	11,946	7,524	(4,422)	159%	8,208	(3,738)	146%
4	Fringe benefits	2,497	2,793	296	35,512	30,723	(4,789)	116%	33,516	(1,996)	106%
	Materials and services	16,124	71,714	55,590	142,198	248,427	106,229	57%	276,817	134,619	51%
	Total	24,845	79,441	54,596	245,263	333,424	88,161	74%	369,541	124,278	66%
Human resources-											
	Salaries and wages	9,345	7,124	(2,221)	85,211	78,364	(6,847)	109%	85,488	277	100%
5	Benefit pay	1,067	1,377	310	13,970	15,147	1,177	92%	16,524	2,554	85%
4	Fringe benefits	4,177	4,813	636	51,656	52,943	1,287	98%	57,756	6,100	89%
	Materials and services	4,231	2,035	(2,196)	23,111	56,236	33,125	41%	60,371	37,260	38%
	Total	18,819	15,349	(3,470)	173,948	202,690	28,742	86%	220,139	46,191	79%
Engineering and planning-											
	Salaries and wages	15,537	8,904	(6,633)	180,199	97,944	(82,255)	184%	106,848	(73,351)	169%
5	Benefit pay	2,107	1,964	(143)	32,028	21,604	(10,424)	148%	23,568	(8,460)	136%
4	Fringe benefits	7,079	6,154	(925)	113,141	67,694	(45,447)	167%	73,848	(39,293)	153%
	Materials and services	27,229	26,223	(1,006)	262,778	386,711	123,933	68%	407,288	144,510	65%
	Total	51,951	43,245	(8,706)	588,148	573,953	(14,195)	102%	611,552	23,404	96%
Accounting-											
	Salaries and wages	15,844	12,886	(2,958)	147,064	141,746	(5,318)	104%	154,632	7,568	95%
5	Benefit pay	6,432	3,028	(3,404)	36,763	33,308	(3,455)	110%	36,336	(427)	101%
4	Fringe benefits	8,937	9,010	73	98,739	99,110	371	100%	108,120	9,381	91%
	Materials and services	24,008	34,071	10,064	269,831	417,773	147,942	65%	457,774	187,943	59%
	Total	55,221	58,995	3,774	552,397	691,937	139,540	80%	756,862	204,465	73%
Other general operating-											
	Insurance	11,027	14,720	3,693	131,603	161,920	30,317	81%	176,640	45,037	75%
	Auditing	0	0	0	43,770	45,000	1,230	97%	45,000	1,230	97%
	Rate study	0	0	0	0	0	0	0%	0	0	0%
	Legal	85,542	50,000	(35,542)	698,665	1,036,000	337,335	67%	1,086,000	387,335	64%
	Ground water management	(13,351)	0	13,351	(13,351)	20,000	33,351	0%	20,000	33,351	-67%
	Depreciation	21,143	10,964	(10,179)	234,661	122,687	(111,974)	191%	133,651	(101,010)	176%
	Total operating expenses	524,918	584,619	59,701	6,186,000	6,657,756	471,756	93%	7,159,781	973,781	86%
Less - Fund transfers:											
	General reimbursable jobs	(11)	(2,132)	(2,121)	(1,222)	(24,279)	(23,057)	5%	(26,110)	(24,888)	5%
	General construction in progress	(1,801)	(5,321)	(3,519)	(9,042)	(60,592)	(51,551)	15%	(65,161)	(56,119)	14%
	Water reimbursable jobs "DHS"	(5,915)	(13,334)	(7,419)	(41,733)	(151,853)	(110,119)	27%	(163,303)	(121,570)	26%
	Water construction in progress "DHS"	(15,788)	(24,452)	(8,664)	(194,894)	(278,468)	(83,575)	70%	(299,466)	(104,572)	65%
B	Water operating expenses "DHS"	(307,701)	(362,198)	(54,497)	(4,090,450)	(4,124,779)	(34,329)	99%	(4,435,806)	(345,356)	92%
	Water reimbursable jobs "IDE"	0	0	0	(290)	0	290	0%	0	290	0%
	Water construction in progress "IDE"	0	0	0	0	0	0	0%	0	0	0%
C	Water operating expenses "IDE"	(9,320)	(23,081)	(13,761)	(131,235)	(262,851)	(131,616)	50%	(282,671)	(151,436)	46%
	Sewer reimbursable jobs	(1,545)	(2,712)	(1,166)	(10,644)	(30,881)	(20,238)	34%	(33,210)	(22,566)	32%
	Sewer construction in progress	(2,257)	(13,222)	(10,965)	(46,652)	(150,575)	(103,923)	31%	(161,929)	(115,277)	29%
D	Sewer operating expenses	(180,579)	(138,167)	42,412	(1,659,840)	(1,573,478)	86,362	105%	(1,692,125)	(32,285)	98%
	NET OPERATING EXPENSE	0	0	0	0	0	(0)	0%	0	(0)	
A	NET INCOME(LOSS)	51,263	23,806	27,457	522,416	526,199	(3,783)	99%	285,676	(236,740)	100%

MISSION SPRINGS WATER DISTRICT
 COMBINED FUNDS
 BENEFIT PAY ALLOCATION
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE 5

SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021			
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	TOTAL	REMAINING	92%	
			(UNFAVORABLE) VARIANCE			(UNFAVORABLE) VARIANCE					OF YEAR TO DATE
GENERAL OPERATING FUND:											
Customer accounts	E	4,356	925	(3,431)	69,490	10,175	(59,315)	683%	11,100	(58,390)	626%
Buildings and grounds	E	50	157	107	502	1,727	1,225	29%	1,884	1,382	27%
Vehicle maintenance	E	105	235	130	1,552	2,585	1,033	60%	2,820	1,268	55%
Administration	E	7,179	9,262	2,083	125,336	101,882	(23,454)	123%	111,148	(14,188)	113%
Board of directors	E	40	922	882	413	10,142	9,729	4%	11,064	10,651	4%
Public affairs	E	816	684	(132)	11,946	7,524	(4,422)	159%	8,208	(3,738)	146%
Human resources	E	1,067	1,377	310	13,970	15,147	1,177	92%	16,524	2,554	85%
Engineering and planning	E	2,107	1,964	(143)	32,028	21,604	(10,424)	148%	23,568	(8,460)	136%
Accounting	E	6,432	3,028	(3,404)	36,763	33,308	(3,455)	110%	36,336	(427)	101%
Total		22,152	18,554	(3,598)	292,000	204,094	(87,906)	143%	222,652	(69,348)	131%
Reimbursable jobs		1			62						
Construction in progress		91			396						
Total allocation	6	22,244			292,457						
WATER OPERATING FUND "DHS":											
Pumping	B	4,067	7,007	2,940	71,240	77,077	5,837	92%	84,084	12,844	85%
Transmission and distribution	B	8,111	10,619	2,508	126,645	116,809	(9,836)	108%	127,428	783	99%
Customer accounts	B	3,361	11,500	8,139	53,500	126,500	73,000	42%	138,000	84,500	39%
Total		15,538	29,126	13,588	251,385	320,386	69,001	78%	349,512	98,127	72%
Reimbursable jobs		299			2,637						
Construction in progress		798			12,332						
Total allocation	6	16,635			266,353						
WATER OPERATING FUND "IDE":											
Pumping	C	411	447	36	4,845	4,917	72	99%	5,364	519	90%
Transmission and distribution	C	45	678	633	2,781	7,458	4,677	37%	8,136	5,355	34%
Customer accounts	C	0	725	725	39	7,975	7,936	0%	8,700	8,661	0%
Total		456	1,850	1,394	7,664	20,350	12,686	38%	22,200	14,536	35%
Reimbursable jobs		0			0						
Construction in progress		0			0						
Total allocation	6	456			7,664						
SEWER OPERATING FUND:											
Collection	D	1,919	3,016	1,097	25,562	33,176	7,614	77%	36,192	10,630	71%
Treatment	D	9,020	8,109	(911)	92,975	89,199	(3,776)	104%	97,308	4,333	96%
Disposal	D	0	0	0	0	0	0	0%	0	0	0%
Total		10,939	11,125	186	118,537	122,375	3,838	97%	133,500	14,963	89%
Reimbursable jobs		78			668						
Construction in progress		114			3,666						
Total allocation	6	11,131			122,871						
TOTAL BENEFIT PAY	6	50,466			689,346						

MISSION SPRINGS WATER DISTRICT
 COMBINED FUNDS
 FRINGE BENEFIT ALLOCATION
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE 4

SEE SCF	CURRENT MONTH			YEAR TO DATE				2020-2021			
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	FAVORABLE	PERCENT USED	TOTAL	REMAINING	92%	
			(UNFAVORABLE) VARIANCE			(UNFAVORABLE) VARIANCE					OF YEAR TO DATE
GENERAL OPERATING FUND:											
Customer accounts	E	12,333	2,638	(9,695)	193,267	29,018	(164,249)	666%	31,656	161,611	611%
Buildings and grounds	E	227	637	410	2,719	7,007	4,288	39%	7,644	(4,925)	36%
Vehicle maintenance	E	474	956	482	8,858	10,516	1,658	84%	11,472	(2,614)	77%
Administration	E	35,136	46,461	11,325	605,968	511,071	(94,897)	119%	557,542	48,426	109%
Board of directors	E	103	3,065	2,962	1,111	33,715	32,604	3%	36,780	(35,669)	3%
Public affairs	E	2,497	2,793	296	35,512	30,723	(4,789)	116%	33,516	1,996	106%
Human resources	E	4,177	4,813	636	51,656	52,943	1,287	98%	57,756	(6,100)	89%
Engineering and planning	E	7,079	6,154	(925)	113,141	67,694	(45,447)	167%	73,848	39,293	153%
Accounting	E	8,937	9,010	73	98,739	99,110	371	100%	108,120	(9,381)	91%
Total		<u>70,964</u>	<u>76,527</u>	<u>5,563</u>	<u>1,110,973</u>	<u>841,797</u>	<u>(269,176)</u>	132%	<u>918,334</u>	<u>192,639</u>	121%
Reimbursable jobs		1			513						
Construction in progress		540			3,094						
Total allocation	6	<u>71,505</u>			<u>1,114,580</u>						
WATER OPERATING FUND "DHS":											
Pumping	B	12,185	19,371	7,186	210,848	213,081	2,233	99%	232,452	(21,604)	91%
Transmission and distribution	B	22,437	27,392	4,955	335,924	301,312	(34,612)	111%	328,704	7,220	102%
Customer accounts	B	9,781	30,348	20,567	155,666	333,828	178,162	47%	364,176	(208,510)	43%
Total		<u>44,402</u>	<u>77,111</u>	<u>32,709</u>	<u>702,438</u>	<u>848,221</u>	<u>145,783</u>	83%	<u>925,332</u>	<u>(222,894)</u>	76%
Reimbursable jobs		947			9,091						
Construction in progress		2,262			39,212						
Total allocation	6	<u>47,611</u>			<u>750,742</u>						
WATER OPERATING FUND "IDE":											
Pumping	C	1,275	1,236	(39)	15,436	13,596	(1,840)	114%	14,832	604	104%
Transmission and distribution	C	146	1,748	1,602	8,222	19,228	11,006	43%	20,976	(12,754)	39%
Customer accounts	C	0	1,909	1,909	89	20,999	20,910	0%	22,908	(22,819)	0%
Total		<u>1,421</u>	<u>4,893</u>	<u>3,472</u>	<u>23,746</u>	<u>53,823</u>	<u>30,077</u>	44%	<u>58,716</u>	<u>(34,970)</u>	40%
Reimbursable jobs		0			0						
Construction in progress		0			0						
Total allocation	6	<u>1,421</u>			<u>23,746</u>						
SEWER OPERATING FUND:											
Collection	D	5,401	7,833	2,432	62,559	86,163	23,604	73%	93,996	(31,437)	67%
Treatment	D	20,538	25,389	4,851	306,954	279,279	(27,675)	110%	304,668	2,286	101%
Disposal	D	0	0	0	0	0	0	0%	0	0	0%
Total		<u>25,939</u>	<u>33,222</u>	<u>7,283</u>	<u>369,513</u>	<u>365,442</u>	<u>(4,071)</u>	101%	<u>398,664</u>	<u>(29,151)</u>	93%
Reimbursable jobs		438			4,363						
Construction in progress		368			9,612						
Total allocation	6	<u>26,746</u>			<u>383,488</u>						
TOTAL FRINGE BENEFITS	6	<u>147,282</u>			<u>2,272,555</u>						

MISSION SPRINGS WATER DISTRICT
 COMBINED FUNDS
 EMPLOYEE BENEFITS
 JULY 1, 2020 TO MAY 31, 2021

SCHEDULE 6

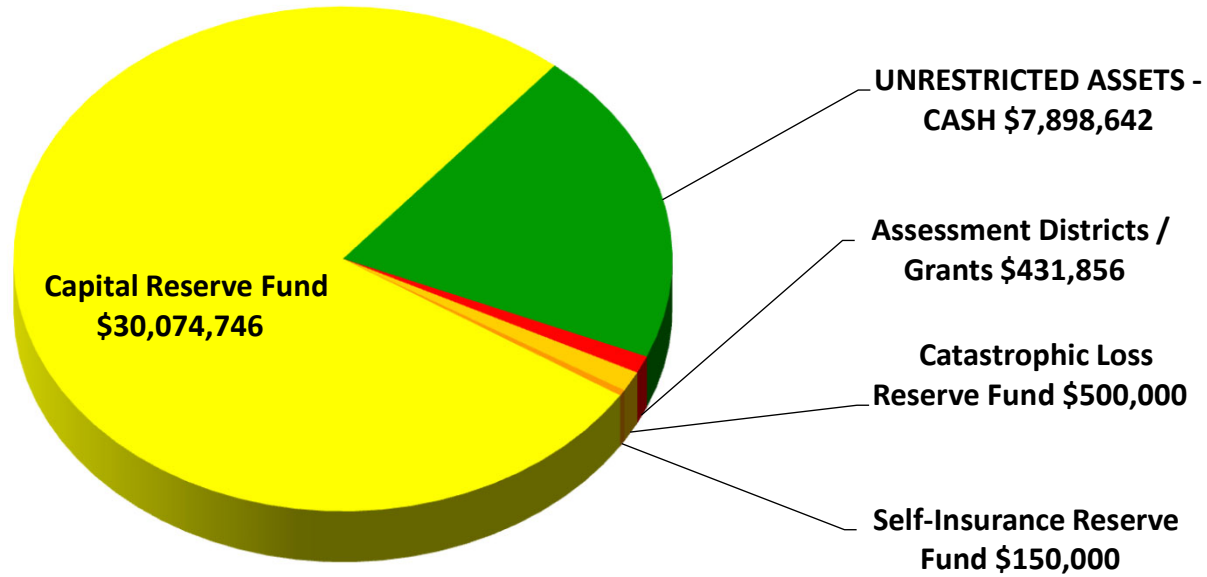
SEE SCH	CURRENT MONTH			YEAR TO DATE				2020-2021		
	ACTUAL	BUDGET	FAVORABLE	ACTUAL	BUDGET	(UNFAVORABLE)	PERCENT USED	TOTAL	REMAINING	92%
			(UNFAVORABLE)			VARIANCE	OF YEAR TO			
			VARIANCE			AMOUNT	DATE	AMOUNT	USED	
BENEFIT PAY:										
Sick leave	16,338	16,338	0	179,718	179,718	0	100%	196,056	16,338	92%
W.C.I. injuries	0	208	208	0	2,288	2,288	0%	2,496	2,496	0%
Vacation	23,822	23,822	0	262,042	262,042	0	100%	285,864	23,822	92%
Bereavement	0	417	417	5,125	4,587	(538)	112%	5,004	(121)	102%
Holidays	1,932	16,813	14,881	180,107	184,943	4,836	97%	201,756	21,649	89%
Optional Holiday	8,239	4,585	(3,654)	61,011	50,435	(10,576)	121%	55,020	(5,991)	111%
Jury duty	135	150	15	1,343	1,650	308	81%	1,800	458	75%
Military pay	0	0	0	0	0	0	0%	0	0	0%
Reimbursements	0	42	42	0	462	462	0%	504	504	0%
Total to allocate	<u>50,466</u>	<u>62,375</u>	<u>11,909</u>	<u>689,346</u>	<u>686,125</u>	<u>(3,220)</u>	100%	<u>748,500</u>	<u>59,155</u>	92%
Allocations:										
General operating fund	5	22,244		292,457						
Water operating fund "DHS"	5	16,635		266,353						
Water operating fund "IDE"	5	456		7,664						
Sewer operating fund	5	11,131		122,871						
Total allocations		<u>50,466</u>	0	<u>689,346</u>	0					
Direct labor		330,320		3,690,087				3,454,106		107%
Benefit pay percent		15%		19%				22%		
FRINGE BENEFITS:										
Health insurance	83,233	88,878	5,645	905,139	977,658	72,519	93%	1,066,536	161,397	85%
Dental insurance	4,060	4,514	454	45,097	49,654	4,557	91%	54,168	9,071	83%
Eye care insurance	827	929	102	9,402	10,219	817	92%	11,148	1,746	84%
Life insurance	1,695	3,019	1,324	18,583	33,209	14,626	56%	36,228	17,645	51%
Weekly income & LTD	1,404	770	(634)	15,388	8,470	(6,918)	182%	9,240	(6,148)	167%
Retiree's insurance	0	1,860	1,860	0	20,460	20,460	0%	22,320	22,320	0%
Federal payroll taxes	28,962	28,297	(665)	313,406	311,267	(2,139)	101%	339,564	26,158	92%
State payroll taxes	193	715	522	9,136	7,865	(1,271)	116%	8,580	(556)	106%
Worker compensation insurance	7,667	10,385	2,718	75,295	114,235	38,940	66%	124,620	49,325	60%
Retirement	19,241	56,842	37,601	879,010	624,662	(254,348)	141%	681,504	(197,506)	129%
Retirement professional fees	0	125	125	2,100	1,975	(125)	106%	2,100	0	100%
Boots and footwear	0	0	0	0	0	0	0%	0	0	0%
Uniforms	0	0	0	0	0	0	0%	0	0	0%
Safety and performance	0	0	0	0	0	0	0%	0	0	0%
Picnic	0	0	0	0	0	0	0%	0	0	0%
Total to allocate	<u>147,282</u>	<u>196,334</u>	<u>49,052</u>	<u>2,272,555</u>	<u>2,159,674</u>	<u>(112,881)</u>	105%	<u>2,356,008</u>	<u>83,453</u>	96%
Allocations:										
General operating fund	4	71,505		1,114,580						
Water operating fund "DHS"	4	47,611		750,742						
Water operating fund "IDE"	4	1,421		23,746						
Sewer operating fund	4	26,746		383,488						
Total allocations		<u>147,282</u>	0	<u>2,272,555</u>	0					
Direct labor		330,320		3,690,087				3,454,106		
Fringe benefit percent		45%		62%				68%		
Total employee benefits		197,748		2,961,901				3,104,508		
Direct labor		330,320		3,690,087				3,454,106		107%
Employee benefits percent		60%		80%				90%		

MISSION SPRINGS WATER DISTRICT
COMBINED FUNDS
CASH AND INVESTMENTS
MAY 31, 2021

SCHEDULE F

	SEE SCH	WATER DISTRICT		SEWER DISTRICT	GENERAL DISTRICT	COMBINED DISTRICTS
		"DHS"	"IDE"			
UNRESTRICTED ASSETS - CASH:						
Change fund and petty cash					1,100	1,100
Checking - Wells Fargo Bank		2,696,228	5,022	2,517,345	2,678,948	7,897,542
Total	A	2,696,228	5,022	2,517,345	2,680,048	7,898,642
RESTRICTED ASSETS - CASH:						
Externally Restricted:						
Assessment Districts / Grants						
Checking - Wells Fargo Bank		106		119,889		119,995
Escrow account - CVWD Prop #84				0		0
AD 12 CSWRCB SRF DEBT SERV RESERVE				311,861		311,861
Internally Restricted:						
Catastrophic Loss Reserve Fund						
Investment Trust of California (CalTrust)					500,000	500,000
Self-Insurance Reserve Fund						
Investment Trust of California (CalTrust)-MM.#191, 12/82					150,000	150,000
Capital Reserve Fund						
Investment Trust of California (CalTrust)						
- MM#95-20, 95-10, 95-21, 6/95		20,619,578	649,995	11,862,466	2,462,580	35,594,619
Financial Assistance Fund						
Investment Trust of California (CalTrust)		0	0	64,223	0	64,223
Capital Improvements						
Investment Trust of California (CalTrust)		(5,881,260)	(4,338,261)	1,607,968	3,027,458	(5,584,096)
Net Capital Reserves		14,738,317	(3,688,266)	13,534,656	5,490,038	30,074,746
TOTAL RESTRICTED ASSETS	A	14,738,424	(3,688,266)	13,966,406	6,140,038	31,156,602
TOTAL CASH IN CUSTODY OF M.S.W.D.	CASH FLOW	17,434,652	(3,683,245)	16,483,751	8,820,087	39,055,244
INTEREST EARNED: (CalTrust)						
July-20	0.09%	12,229	(3,188)	10,905	7,780	27,726
August-20	0.08%	11,814	(3,023)	10,517	6,853	26,162
September-20	0.08%	10,878	(2,763)	9,279	6,290	23,684
October-20	0.07%	10,334	(2,585)	8,426	5,887	22,062
November-20	0.05%	8,862	(1,947)	5,922	4,162	16,999
December-20	0.05%	8,188	(1,795)	5,157	4,045	15,595
January-21	0.04%	6,354	(1,598)	5,103	3,662	13,521
February-21	0.04%	5,414	(1,401)	4,786	3,053	11,853
March-21	0.04%	5,666	(1,433)	4,738	3,128	12,099
April-21	0.03%	4,755	(1,051)	3,384	1,773	8,861
May-21	0.00%	4,053	(893)	2,740	1,559	7,459
June-21	0.00%	-	-	-	-	-
TOTAL		88,547	(21,676)	70,957	48,193	186,021

Total Cash In Custody of MSWD



APPENDIX B –
Federal Update from Carpi & Clay



Mission Springs Water District Federal Update

August 31, 2021

Mission Springs Secures Community Project in Senate Appropriations Bill

Mission Springs Water District has been successful in securing a community project in a Fiscal Year (FY) 2022 Appropriations bill. The Senate Energy and Water Appropriations bill contains \$250,000 for the District’s Groudwater Protection Project with the Army Corps of Engineers, submitted by Senator Dianne Feinstein. As of right now, there is no agreement between the House and the Senate on the top line funding levels for any of the FY22 appropriations bills. All that to say there is still work to do and several steps still to go before this funding is signed into law by the President.

Senate Passes Bipartisan Infrastructure Package

After months of negotiation, the Senate passed a bipartisan infrastructure package entitled the “Infrastructure Investment and Jobs Act” (IIJA). The bill passed by a vote of 69-30, which included 19 Senate Republicans. The bill provides \$550 billion in new infrastructure investments. Following passage in the Senate, the bill was sent to the House for consideration.

Last week, House Democrats came together to together to move the bipartisan infrastructure package one step closer to landing on President Biden’s desk. The House passed by a vote of 220-212 a rule outlining specific floor procedures for several bills. This rule included a provision that will require the House to vote on the Senate-passed bipartisan infrastructure package no later than September 27th. Additionally, the rule includes language that “deemed” the \$3.5 trillion budget resolution approved.

FY22 Appropriations Update

Right before the Senate adjourned for the August recess, the Senate Appropriations Committee held its first markup of Fiscal Year (FY) 2022 Appropriations bills. The chart below outlines the status of the FY22 appropriations bills in the House and the Senate:

<u>Appropriations Bill</u>	House of Representatives	Senate
----------------------------	--------------------------	--------

Agriculture	Approved by the full House on 7/29/21	Approved by Senate Appropriations Committee on 8/4/21
Commerce, Justice, Science	Approved by the House Appropriations Committee on 7/15/21	No Senate Action
Defense	Approved by the House Appropriations Committee on 7/13/21	No Senate Action
Energy and Water	Approved by the full House on 7/29/21	Approved by Senate Appropriations Committee on 8/4/21
Financial Services	Approved by the full House on 7/29/21	No Senate Action
Homeland Security	Approved by the House Appropriations Committee on 7/13/21	No Senate Action
Interior and the Environment	Approved by the full House on 7/29/21	No Senate Action
Labor, HHS, Education	Approved by the full House on 7/29/21	No Senate Action
Legislative Branch	Approved by the full House on 7/28/21	No Senate Action
Military Construction/VA	Approved by the full House on 7/29/21	Approved by Senate Appropriations Committee on 8/4/21
State/Foreign Operations	Approved by the full House on 7/28/21	No Senate Action
Transportation/Housing	Approved by the full House on 7/29/21	No Senate Action

With the federal fiscal year ending on September 30th, Congress will need to pass a Continuing Resolution (CR) in order to keep the federal government funded.

Update on Army Corps ASA Nomination

The Senate Environment and Public Works Committee has announced that it will vote on Mike Connor's nomination to serve as the Assistant Secretary for the Army for Civil Works on Wednesday, September 15th. The Senate Armed Services Committee has already approved his nomination. Once the EPW Committee approves Connor's nomination, her will go before the full Senate for consideration.

A Look Ahead: Congress Faces a Busy September

When Members of Congress return to Washington, D.C. in September following the conclusion of the August, they will be greeted with a long list of legislative items that will need to be acted on by the end of the month, including the following:

- Enhanced federal unemployment in response to impacts of COVID-19 (expires September 6th)
- House Committees self-imposed deadline to submit their portions of the reconciliation bill (September 15th)
- House consideration of the bipartisan infrastructure package (September 27th)
- Ending of the current federal fiscal year (September 30th)
- Debt limit (Treasury indicated will likely be reached in October)
- National Flood Insurance Program authorization (expires September 30th)
- Federal highway program authorization (expires September 30th)
- Temporary Assistance for Needy Families (TANF) (expires September 30th)
- Increased benefits under the Supplemental Nutrition Assistance Program (SNAP) (expires September 30th)

Currently, Congress is scheduled to return to Washington, D.C. the week of September 13th, setting up a busy three weeks of Congressional activity ahead.

Federal Grant Opportunities/Announcements

Reclamation Announces WaterSMART Grant Opportunities. The Bureau of Reclamation has announced the following WaterSMART grant opportunities:

- **Drought Resiliency Program:** Provides funding for on-the-ground projects and modeling tools that increase water supply reliability or improve water management. Applicants are invited to submit proposals under two funding groups for up to \$500,000 or \$2,000,000 respectively depending on the timeline of projects. More information about the grant can be found [HERE](#).
- **Water and Energy Efficiency Grants (WEEG):** Provides funding for projects that result in quantifiable water savings, implement renewable energy components, and support broader sustainability benefits. Applications are due on November 3, 2021. The full grant opportunity can be found [HERE](#).
- **Environmental Water Resources Projects:** Provides funding to support projects focused on environmental benefits and that have been developed as part of a collaborative process to help carry out an established strategy to increase the reliability of water resources. Applications are due December 9, 2021. The full grant opportunity can be found [HERE](#).

Federal Agency Personnel/Regulatory Announcements

Treasury Department Releases Template Recovery Plan for State and Local Recovery Funds. In late June, the Treasury Department outlined reporting requirements for the Coronavirus State and Local Fiscal Recovery Funds that were included in the American Rescue Plan Act (ARPA). The first annual recovery plan is due on August 31st. This plan must

provide information on how the County is using the funds to achieve outcomes in effective, efficient, and equitable manner. The Treasury Department released a template for this report that can be found [HERE](#).

Reclamation Announces New Regional Director. The Bureau of Reclamation announced that Jacklynn Gould has been named as regional director for the Lower Colorado Basin Region. Gould has been with Reclamation for more than 29 years and is currently serving as the deputy regional director.

EPA Announces Appointment of LGAC Members. The Environmental Protection Agency (EPA) announced the appointment of 34 members to the Local Government Advisory Committee (LGAC) as well as also the appointment of 16 members to the LGAC's Small Communities Advisory Subcommittee. The LGAC provides independent policy advice to the EPA Administrator on a broad range of issues affecting local governments while the Small Community Advisory Subcommittee was established to advise the Administrator on environmental issues of concern to the residents of smaller communities. The full list of appointees can be accessed [HERE](#).

Census Bureau Releases Redistricting Data. The U.S. Census Bureau released the redistricting data from the 2020 census. The data reveals that U.S. metro areas grew by 9% with 86% of the population now living in U.S. metro areas in 2020. States may use these data in redrawing congressional, legislative, and local district boundaries. More information can be found [HERE](#).



APPENDIX C – Wastewater and Water Production Tables

WASTEWATER REPORT

SEWER CONNECTION SUMMARY											
	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17	2015/16	2014/15	2013/14	2012/13	2011/12
July	18	8	7	9	51	2	1	139	2	0	0
Aug.	20	4	1	8	53	2	4	214	4	0	2
Sep.		5	2	12	8	11	2	90	2	1	0
Oct.		9	4	8	12	4	21	65	8	2	1
Nov.		50	10	9	7	7	1	52	18	7	3
Dec.		9	3	3	64	1	0	86	22	11	2
Jan.		21	7	1	16	8	3	27	3	11	1
Feb.		23	5	1	42	0	3	5	46	6	1
Mar.		48	1	0	23	5	0	31	16	2	1
Apr.		18	3	3	15	30	0	8	95	14	3
May		17	11	3	20	45	7	13	98	3	2
June		21	7	3	6	70	4	4	72	2	0
Annual Total	38	233	61	60	317	185	46	734	386	59	16

Connections to Sewer Collection System:

As of June 30, 2021

8467

Plus YTD

38

Total Sewer Connections =

8505

WASTEWATER FLOW MGD				
2021/22	HORTON PLANT		DESERT CREST	
	Avg. Daily Flow	Peak 24 hr. Flow	Avg. Daily Flow	Peak 24 hr. Flow
July	1.987088	2.104457	0.042128	0.058130
Aug.	2.059728	2.224424	0.052436	0.064940
Sep.				
Oct.				
Nov.				
Dec.				
Jan.				
Feb.				
Mar.				
Apr.				
May				
June				

WASTEWATER FLOW MGD				
2020/21	HORTON PLANT		DESERT CREST	
	Avg. Daily Flow	Peak 24 hr. Flow	Avg. Daily Flow	Peak 24 hr. Flow
July	2.069268	2.140825	0.047916	0.079010
Aug.	2.135828	2.274566	0.053795	0.070420
Sep.	2.003417	2.121446	0.046861	0.077790
Oct.	1.964716	2.100928	0.043720	0.049600
Nov.	1.928082	2.082209	0.046171	0.051750
Dec.	1.750513	2.074777	0.044951	0.050380
Jan.	1.846818	2.018006	0.045299	0.050610
Feb.	1.889826	2.253275	0.043718	0.048950
Mar.	1.859783	2.040589	0.043382	0.048920
Apr.	1.897411	2.111914	0.040257	0.060120
May	1.954528	2.151420	0.039293	0.046660
June	2.014604	2.110777	0.038634	0.047440

WATER REPORT

WATER CONNECTION SUMMARY														
	2021/22	2020/21	2019/20	2018/19	2017/18	2016/17	2015/16	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09
July	18	7	4	5	7	2	0	0	1	0	0	0	1	2
August	19	6	10	5	3	2	2	0	1	0	0	2	1	2
September		18	2	14	4	13	3	0	2	2	0	0	1	0
October		13	3	21	8	3	20	0	5	1	1	4	2	1
November		10	16	4	0	7	3	0	1	0	1	1	5	1
December		2	17	3	3	2	0	0	2	0	0	0	0	2
January		15	6	3	20	1	1	2	2	0	0	1	1	9
February		13	8	5	11	1	0	1	0	1	0	0	1	2
March		16	2	3	6	5	0	12	0	0	4	5	0	4
April		11	1	3	7	11	2	7	0	1	4	1	12	2
May		15	12	5	11	9	8	2	0	1	2	0	0	0
June		24	11	2	8	2	10	1	0	0	0	1	1	0
Annual Total	37	150	92	73	88	58	49	25	14	6	12	15	25	25
Avg./ Mo.	3.08	12.50	7.67	6.08	7.33	4.83	4.08	2.08	1.17	0.50	1.00	1.25	2.08	2.08

Connections to Water System:

As of June 30, 2021 13,141
 Plus YTD 37
Total Water Connections = 13,178

WATER PRODUCTION														
	FY 2021/22	Variance from prior year		FY 2020/21	FY 2019/20	FY 2018/19	FY 2017/18	FY 2016/17	FY 2015/16	FY 2014/15	FY 2013/14	FY 2012/13	FY 2011/12	FY 2010/11
	AF	AF	%	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF
July	796.67	-61.10	-7.1%	857.77	853.23	857.20	835.87	714.50	659.11	859.00	942.82	911.87	838.49	902.71
August	840.02	-45.29	-5.1%	885.31	795.18	806.47	829.93	808.54	706.62	730.71	828.60	853.85	959.02	964.34
September		0.00	0.0%	784.80	757.08	689.47	712.40	679.54	657.37	800.67	813.20	723.92	826.46	896.27
October		0.00	0.0%	755.84	709.39	709.81	733.86	678.33	575.86	716.30	716.09	788.55	789.71	701.93
November		0.00	0.0%	690.13	619.87	631.75	642.41	601.89	582.22	533.69	557.05	672.3	654.77	709.98
December		0.00	0.0%	588.32	537.23	502.16	584.24	520.63	503.10	590.83	633.09	520.3	575.27	548.09
January		0.00	0.0%	537.96	553.20	570.20	599.52	465.10	431.38	526.86	582.86	609.45	616.19	545.04
February		0.00	0.0%	495.61	520.85	415.49	512.79	453.39	483.92	506.49	522.87	507.31	561.24	486.57
March		0.00	0.0%	625.80	557.73	490.92	536.09	549.50	514.05	614.94	603.89	559.02	583.70	575.84
April		0.00	0.0%	649.34	573.02	635.08	644.06	540.56	502.36	622.58	664.05	744.77	645.93	626.37
May		0.00	0.0%	723.62	698.99	598.36	697.15	731.81	601.83	590.28	708.18	786.79	763.12	758.58
June		0.00	0.0%	761.63	806.02	710.39	688.74	732.68	685.93	706.34	812.96	780.86	794.00	839.98
TOTAL	1636.69	-106.39	-6.1%	8356.13	7981.79	7617.30	8017.06	7476.47	6,903.75	7,798.69	8,385.66	8,458.99	8,607.90	8,555.70



APPENDIX D – Public Affairs Information

Mission Springs Water District
Social Media Report
August 2021

 Mission Springs Water District

Facebook Performance Summary

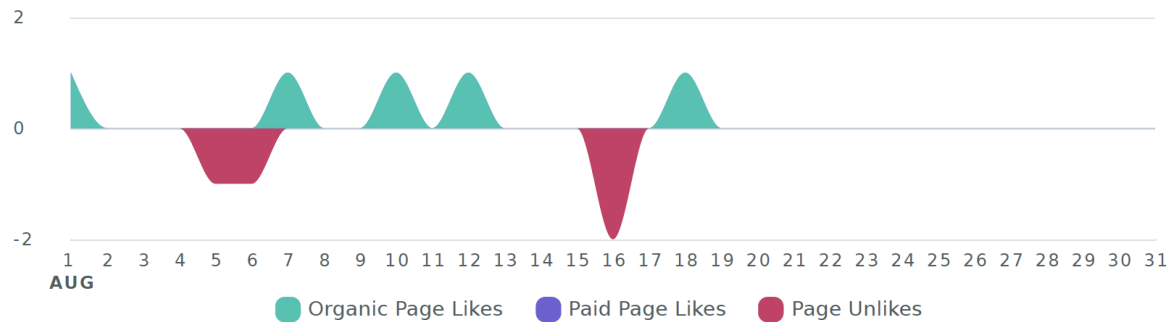
View your key profile performance metrics from the reporting period.

Impressions 211,731 ↗5.9%	Engagements 671 ↘64.1%	Post Link Clicks 310 ↘35.1%
-------------------------------------	----------------------------------	---------------------------------------

Facebook Audience Growth

See how your audience grew during the reporting period.

Net Page Likes Breakdown, by Day



Audience Metrics	Totals	% Change
Fans	1,078	↗0.09%
Net Page Likes	1	↘94.12%
Organic Page Likes	5	↘75.00%
Paid Page Likes	0	→0.00%
Page Unlikes	4	↗33.33%

Facebook Top Posts

Review your top posts published during the selected time period, based on the post's lifetime performance.

By Lifetime Engagements

MSWD	Facebook	Mission Spring...	Date	Time
		Mission Spring...	Fri 8/13/2021	9:00 am PDT
<p>#DYK... we are building a new Regional Water Reclamation Facility to better serve you!</p>				
Total Engagements		26		
Reactions		13		
Comments		2		
Shares		2		
Post Link Clicks		—		
Other Post Clicks		9		
		Mission Spring...	Fri 8/20/2021	1:55 pm PDT
<p>🔴 Help save lives and get a free commemorative T-shirt! MSWD is proud to team up</p>				
Total Engagements		22		
Reactions		11		
Comments		0		
Shares		2		
Post Link Clicks		3		
Other Post Clicks		6		
		Mission Spring...	Sun 8/15/2021	9:15 am ...
<p>Don't let FOGs become clogs! Fats, Oils and Grease may pour down the drain easily,</p>				
Total Engagements		14		
Reactions		11		
Comments		0		
Shares		2		
Post Link Clicks		—		
Other Post Clicks		1		

@missionspringswaterdistrict

Instagram Performance Summary

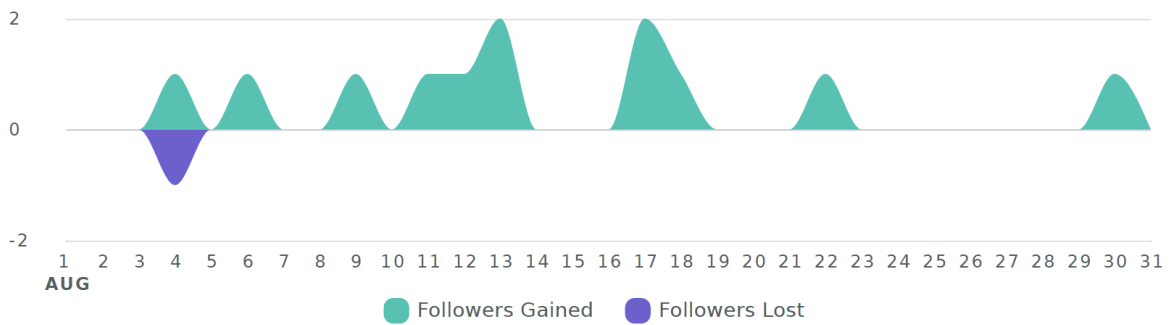
View your key profile performance metrics from the reporting period.

Impressions 14,378 ↘23.5%	Engagements 84 ↘23.6%	Profile Actions 2 →0%
-------------------------------------	---------------------------------	---------------------------------

Instagram Audience Growth

See how your audience grew during the reporting period.

Net Follower Growth Breakdown, by Day



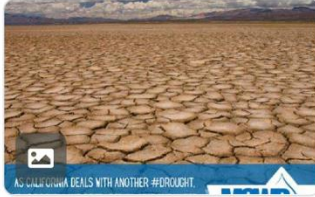


Audience Metrics	Totals	% Change
Followers	181	↗6.47%
Net Follower Growth	11	↗22.22%
Followers Gained	12	↗33.33%
Followers Lost	1	↗100.00%

Instagram Top Posts & Stories

Review your top posts and stories published during the selected time period, based on the post or story's lifetime performance.

By Lifetime Engagements

MSWD Instagram Post	MSWD Instagram Post	MSWD Instagram Post
<p>missionsprings... Fri 8/6/2021 10:00 am PDT</p> <p>Beat the heat today and enjoy National Water Balloon Day! 👉 Share your pictures here</p> 	<p>missionsprings... Fri 8/13/2021 9:05 am PDT</p> <p>#DYK... we are building a new Regional Water Reclamation Facility to better serve you!</p> 	<p>missionsprings... Sat 8/28/2021 9:00 am P...</p> <p>As California deals with another #drought, we are ready and prepared to meet</p> 
<p>Total Engagements 11</p> <hr/> <p>Likes 10</p> <hr/> <p>Comments 1</p> <hr/> <p>Saves 0</p>	<p>Total Engagements 9</p> <hr/> <p>Likes 8</p> <hr/> <p>Comments 1</p> <hr/> <p>Saves 0</p>	<p>Total Engagements 8</p> <hr/> <p>Likes 7</p> <hr/> <p>Comments 1</p> <hr/> <p>Saves 0</p>

@MSWaterDistrict

Twitter Performance Summary

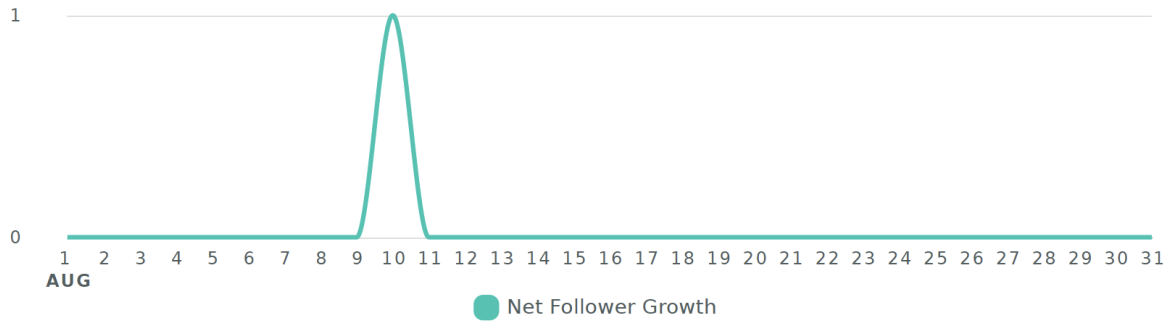
View your key profile performance metrics from the reporting period.

Impressions 723 ↘ 18.3%	Engagements 5 ↘ 50%	Post Link Clicks 0 → 0%
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Twitter Audience Growth

See how your audience grew during the reporting period.

Net Follower Growth, by Day











Audience Metrics	Totals	% Change
Followers	79	↗ 1.3%
Net Follower Growth	1	→ 0%
Following	100	→ 0%

Twitter Top Posts

Review your top posts published during the selected time period, based on the post's lifetime performance.

By Lifetime Engagements

MSWD  MSWaterDistrict Sun 8/15/2021 4:15 pm ...	MSWD  MSWaterDistrict Fri 8/6/2021 5:00 pm UTC	MSWD  MSWaterDistrict Mon 8/30/2021 3:30 pm ...
<p>Don't let FOGs become clogs! Let fats, oils and grease solidify, then scrape into the</p> 	<p>Beat the heat today and enjoy National Water Balloon Day!   Share your pictures here</p> 	<p>Celebrate National Beach Day! Cool off at the Furbee Pool, named in honor of a</p> 
Total Engagements 3	Total Engagements 2	Total Engagements 1
Likes 3	Likes 2	Likes 1
@Replies 0	@Replies 0	@Replies 0
Retweets 0	Retweets 0	Retweets 0
Post Link Clicks —	Post Link Clicks —	Post Link Clicks —
Other Post Clicks 0	Other Post Clicks 0	Other Post Clicks 0
Other Engagements 0	Other Engagements 0	Other Engagements 0

in Mission Springs Water District

LinkedIn Performance Summary

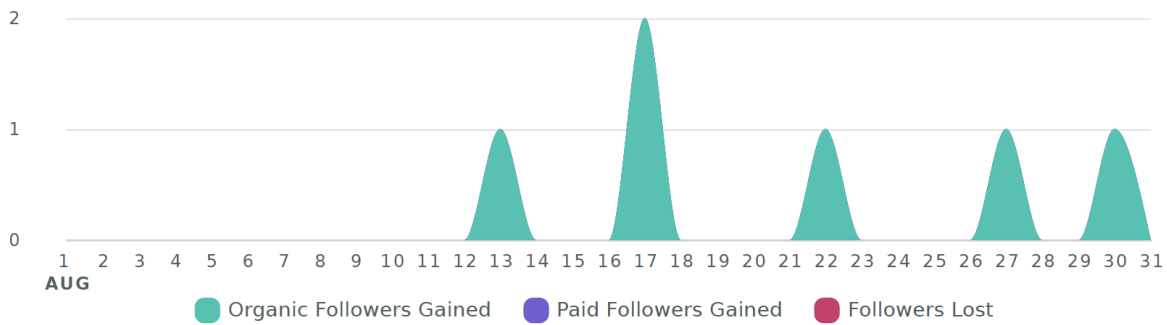
View your key profile performance metrics from the reporting period.

Impressions 203 ↘ 49.8%	Engagements 15 ↘ 54.5%	Post Clicks (All) 7 ↘ 63.2%
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LinkedIn Audience Growth

See how your audience grew during the reporting period.

Net Follower Growth Breakdown, by Day





Audience Metrics	Totals	% Change
Followers	70	↗ 9.4%
Net Follower Growth	6	↗ 200%
Organic Followers Gained	6	↗ 200%
Paid Followers Gained	0	→ 0%
Followers Lost	0	→ 0%

LinkedIn Top Posts

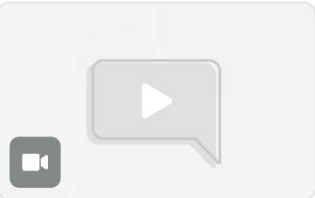
Review your top posts published during the selected time period, based on the post's lifetime performance.

By Lifetime Engagements



 **Mission Spring...**
Fri 8/13/2021 4:22 pm UTC

#DYK... we are building a new Regional Water Reclamation Facility to better serve you!



Total Engagements	7
Reactions	2
Comments	0
Shares	1
Post Clicks (All)	4





 **Mission Spring...**
Sat 8/28/2021 4:00 pm ...

The entire State of California is currently in the midst of a drought. While conditions in



Total Engagements	3
Reactions	2
Comments	0
Shares	1
Post Clicks (All)	0



 **Mission Spring...**
Sun 8/1/2021 4:30 pm UTC

Join us in celebrating National Water Quality Month this August! MSWD works

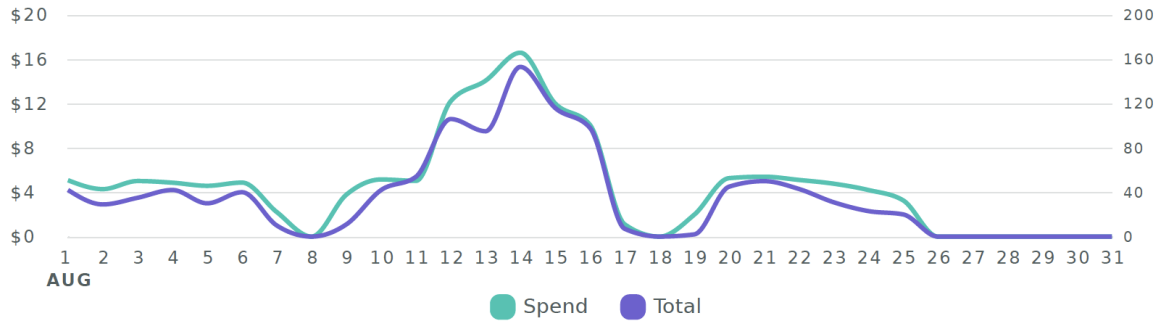


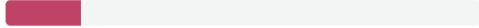
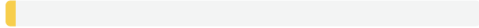



Total Engagements	2
Reactions	2
Comments	0
Shares	0
Post Clicks (All)	0

Facebook & Instagram Paid Engagement

Visualize and analyze how people are engaging with your paid campaigns during the reporting period.

Engagements, by Day



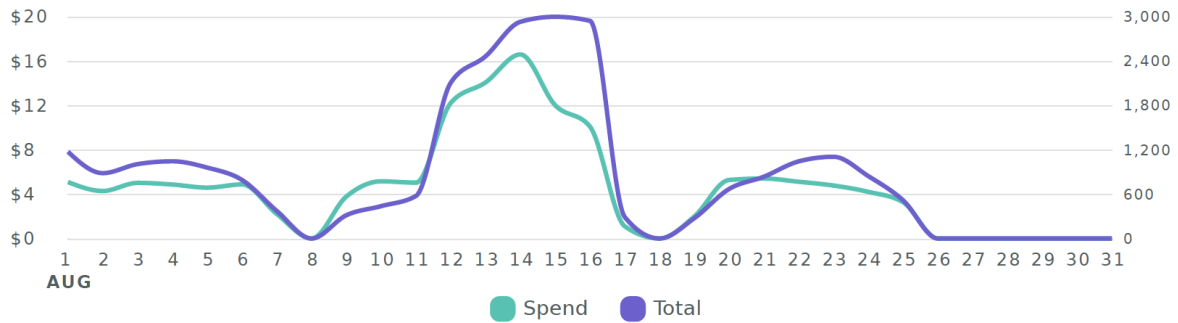
Engagement, by Engagement Type	Totals	% Change
Total Engagements	1,124	↘ 10.3%
Reactions 	177	↗ 12.7%
Shares 	23	↗ 283.3%
Comments 	3	↘ 40%
Link Clicks 	825	↘ 20.2%
Other 	96	↗ 88.2%

Engagement Metrics	Totals	% Change
CPE	\$0.13	↘ 14.7%
Engagement Rate (per Impression)	4.2%	↘ 4.8%
Average Daily Engagements	36.26	↘ 10.3%

Facebook & Instagram Paid Impressions

Review how many times your content was seen by the targeted audience during the reporting period.

Impressions, by Day



Impression Metrics	Totals	% Change
Total Impressions	26,555	↘ 5.8%

Impression Metrics	Totals	% Change
CPM	\$5.31	↘ 18.7%
Average Daily Impressions	856.61	↘ 5.8%



MSWD Digital Marketing and Website Report

Website, Social, and Marketing Performance

August, 2021

Casey Dolan

Casey Dolan Consulting

Google Ads Campaigns

 **IMPRESSIONS**
MSWD


164,500

 **CLICKS**
MSWD

420

 **CTR**
MSWD



0.26%

 **GOOGLE ADS CAMPAIGN PERFORMANCE**
MSWD


Campaign	Impr.	Clicks	CTR
MSWD Rebates Available	44,914	292	0.65%
MSWD Help2Others August 2021	75,854	83	0.11%
Water Quality August	43,732	45	0.1%
	164,500	420	0.26%

Facebook Ad Campaigns

 **FACEBOOK AD GROUP PERFORMANCE**
MSWD

Ad preview	Clicks	Impr.	Reach	Frequency	Page Likes
 <p>MSWD Value is Our Mission www.mswd.org MSWD encourages customers to reduce outdoor water usage by converting their lawns to desert-friendly landscaping. Residential customers can receive up to \$3,000 in rebates and \$10,000 for commercial customers.</p>	431	24,268	5,512	4.4	0
 <p>MSWD - View Our Water Quality Report www.mswd.org MSWD is proud to serve some of the best-tasting drinking water in the world. View our annual Water Quality Report by clicking the link below.</p>	63	71,819	7,232	9.93	0
	556	207,623	47,869	4.34	0

Item 19.

Ad preview	Clicks	Impr.	Reach	Frequency	Page Likes
 <p>BILL ASSISTANCE AVAILABLE!</p> <p>MSWD - Water Bill Assistance www.mswd.org If you need help paying your water bill, MSWD is here for you. Click to learn more about our bill assistance options.</p>	62	111,536	36,446	3.06	0
	556	207,623	47,869	4.34	0

Website Information

PAGEVIEWS
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

36,781

NEW VISITOR
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

5,279

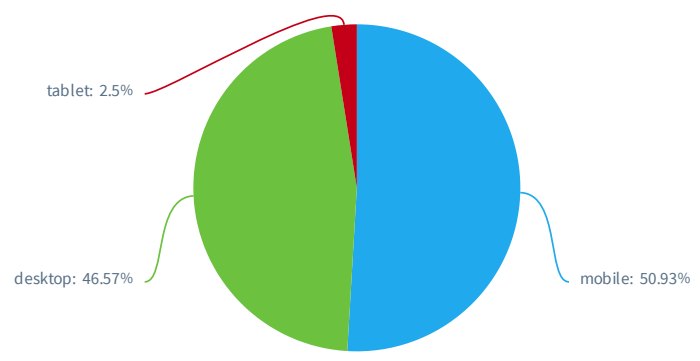
USERS
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

2,730

PAGEVIEWS
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

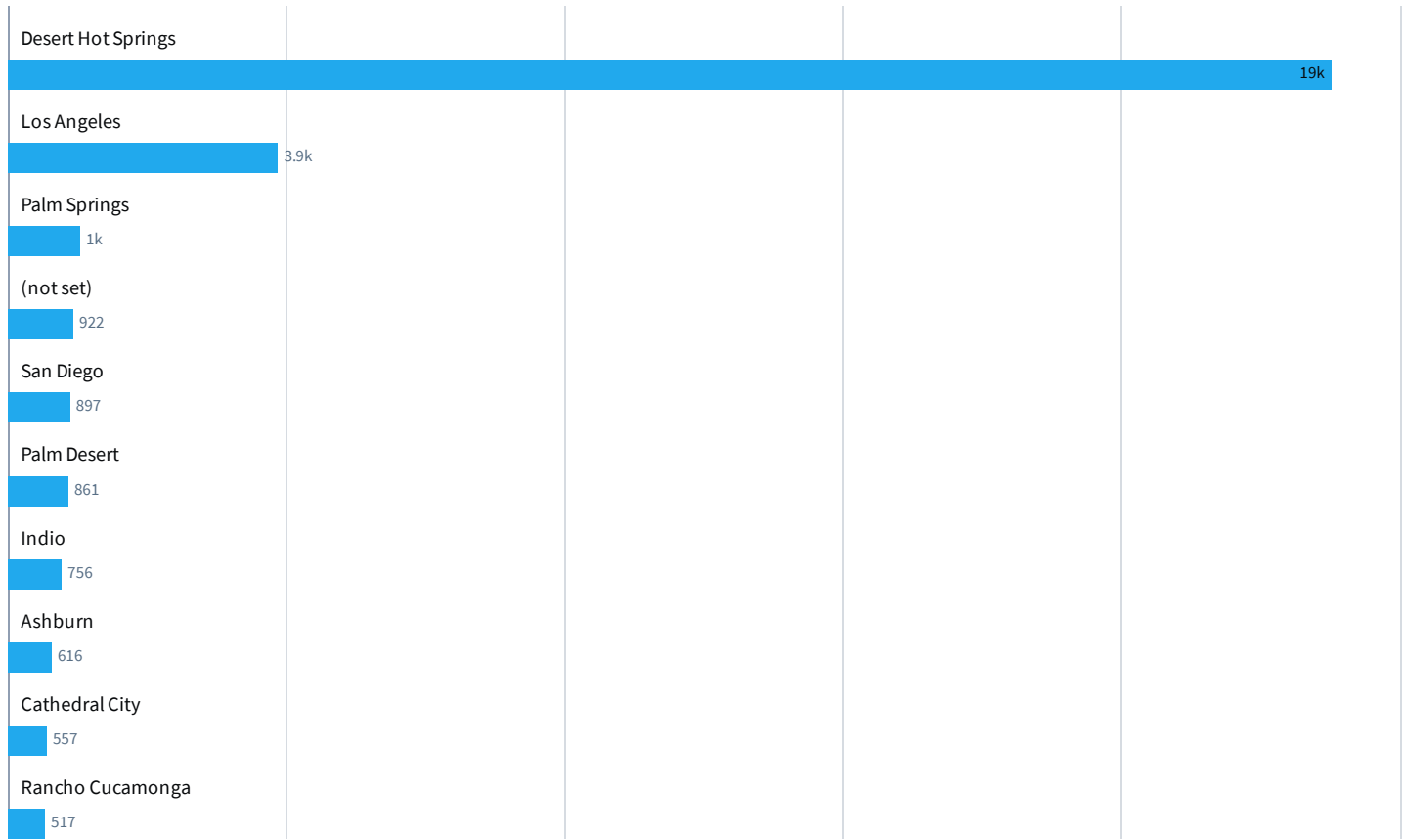
Page Title	Pageviews
Mission Springs Water District - Sign In	6,918
Mission Springs Water District - Home	5,707
Mission Springs Water District - My Account	5,145
Mission Springs Water District - Pay Bills	2,937
(not set)	2,655
Mission Springs Water District - Payment Options	2,536
Mission Springs Water District - Pay as a Guest	1,978
Mission Springs Water District - You Have Successfully Signed Off	1,523
Mission Springs Water District - Account Detail	1,265
Mission Springs Water District - Rebates	815
	36,781

SESSIONS / DEVICE CATEGORY
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD



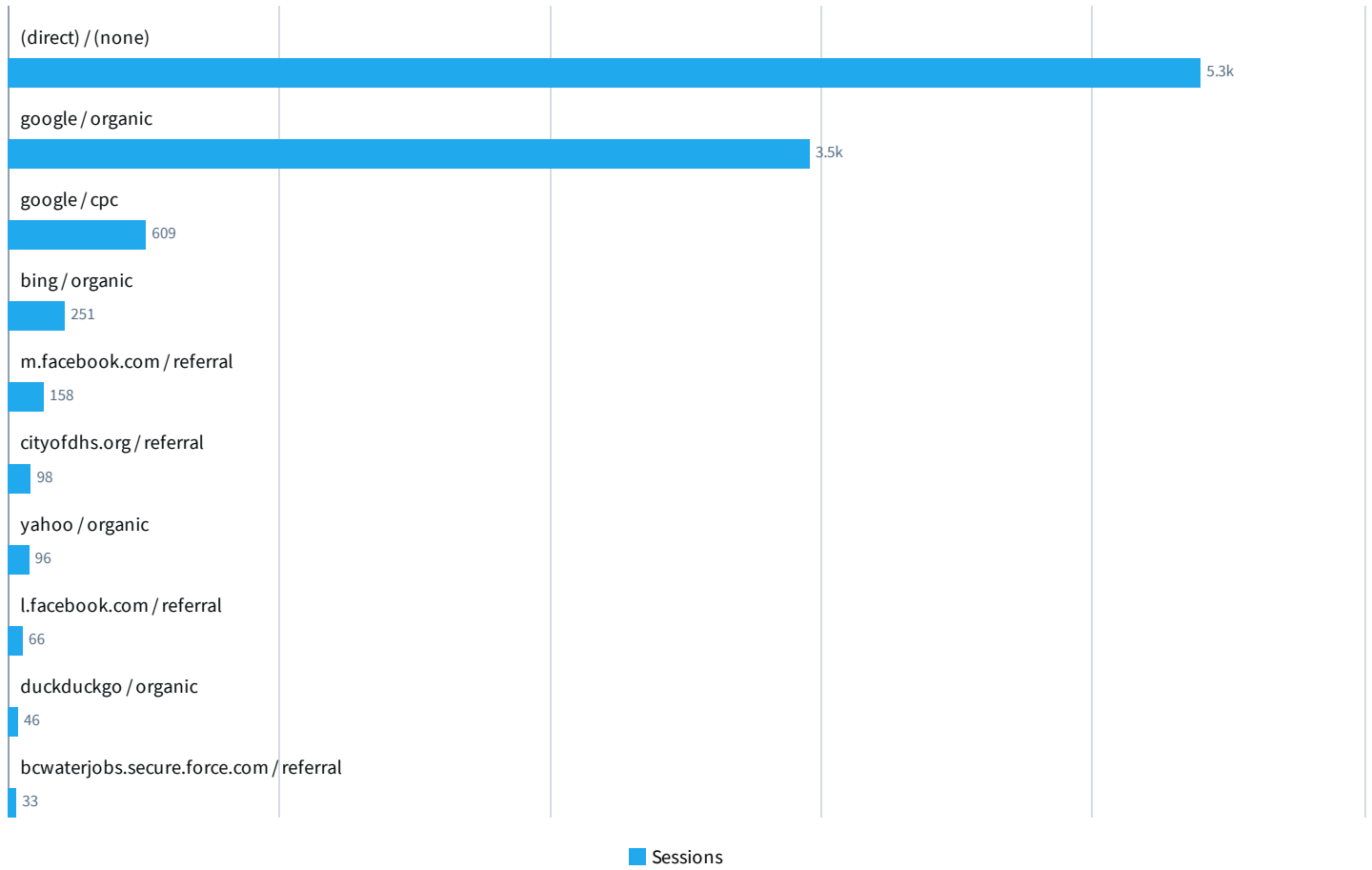
Item 19.

PAGEVIEWS BY CITY
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD



■ Pageviews

USER REFERRERS
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD



AVG. SESSION DURATION
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

2m 17s

PAGES / SESSION
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

3.55

BOUNCE RATE
WWW.MSWD.ORG - HTTP://WWW.MSWD.ORG - MSWD

38.32%